Geophysical journal international subject index by volume 124–127

Absorption

Constant dielectric losses of ground-penetrating radar waves (Bano, M.), **124,** 279

Acoustic impedance

The S reflector west of Galicia: the seismic signature of a detachment fault (Reston, T.J.), **127,** 230

Advection

Palaeoclimate and structure: the most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland (Kukkonen, I.T., Šafanda, J.), **126,** 101

Aegean

Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area (Kalogeras, I.S., Burton, P.W.), **125,** 679
Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean (Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D.), **126,** 11
S–P-wave traveltime residuals from earthquakes and lateral inhomogeneity in the upper mantle beneath the Aegean and the Hellenic Trench near Crete (Taymaz, T.), **127,** 545

Aftershocks

Some features of aftershock patterns in Greece (Drakatos, G., Latoussakis, J.), **126,** 123
Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17
Applying the relative hypocentre location approach: where was the 1980 November 23 Irpinia earthquake? (Giardini, D., Basili, A., Boschi, E.), **127,** 605

Albania

Magnetobiostratigraphy of the Spathian to Anisian (Lower to Middle Triassic) Kçira section, Albania (Muttoni, G., Kent, D.V., Meço, S., Nicora, A., Gaetani, M., Balini, M., Germani, D., Rettori, R.), **127,** 503

Altimetry

An optimal procedure for deriving marine gravity from multi-satellite altimetry (Hwang, C., Parsons, B.), **125,** 705

Altyn Tagh fault

Rate of left-lateral movement along the easternmost segment of the Altyn Tagh fault, east of 96°E (China) (Meyer, B., Tapponnier, P., Gaudemer, Y., Peltzer, G., Shunmin, G., Zhitai, C.), **124,** 29

am indices

A model for the *am* (*Km*) planetary geomagnetic activity index and application to prediction (Francq, C., Menvielle, M.), **125,** 729

Analogue experiments

The dynamics of back-arc extension: an experimental approach to the opening of the Tyrrhenian Sea (Faccenna, C., Davy, P., Brun, J.-P., Funiciello, R., Giardini, D., Mattei, M., Nalpas, T.), **126,** 781

Anelasticity

Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **124,** 456

Anisotropy

Crack closure pressures inferred from ultrasonic drill-core measurements to 8 km depth in the KTB wells (Zang, A., Berckhemer, H., Lienert, M.), **124,** 657
A phenomenological model of orientational magnetic anisotropy of sediments (Kosterov, A.A., Shashkanov, V.A.), **125,** 149
Elastic wave propagation in a medium containing oriented inclusions with a changing aspect ratio: a physical model study (Ass'ad, J.M., McDonald, J.A., Tatham, R.H., Kusky, T.M.), **125,** 163
Seismic anisotropy within the uppermost mantle of southern Germany (Enderle, U., Mechie, J., Sobolev, S., Fuchs, K.), **125,** 747
Tectonic implications of *S*-wave anisotropy beneath SE Brazil (James, D.E., Assumpção, M.), **126,** 1
Anisotropy and *P*-wave tomography: a new approach for inverting teleseismic data from a dense array of stations (Grésillaud, A., Cara, M.), **126,** 77
Surface waves in layered anisotropic structures (Park, J.), **126,** 173
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
An analysis of shear waves observed in VSP data from the superdeep well at Kola, Russia (Digranes, P., Kristoffersen, Y., Karajev, N.), **126,** 545
Seismic anisotropy in the north-eastern US as a source of significant teleseismic *P* traveltime anomalies (Levin, V., Menke, W., Lerner-Lam, A.), **126,** 593
A 2.5-D time-domain elastodynamic equation for a general anisotropic medium (Takenaka, H., Kennett, B.L.N.), **127,** F1
Teleseismic imaging of subaxial flow at mid-ocean ridges: traveltime effects of anisotropic mineral texture in the mantle (Blackman, D.K., Kendall, J.-M., Dawson, P.R., Wenk, H.-R., Boyce, D., Phipps Morgan, J.), **127,** 415

Anisotropy of magnetic susceptibilty

Magnetic mineralogy changes in the Pleistocene marine sequence of Montalto di Castro (central Italy) and influences on the magnetic anisotropy (Lehman, B., Sagnotti, L., Winkler, A., Lo Cascio, C.), **127,** 529

Antarctica

A towed geophone system for use in snow-covered terrain (King, E.C., Bell, A.C.), **126,** 54

APW (apparent polar wander)

Palaeomagnetic-pole errors and a 'small-circle' assessment of the Gondwanan polar-wander path (Tarling, D.H., Abdeldayem, A.L.), **125,** 115

Geophysical journal international subject index by volume 124–127

Absorption

Constant dielectric losses of ground-penetrating radar waves (Bano, M.), **124,** 279

Acoustic impedance

The S reflector west of Galicia: the seismic signature of a detachment fault (Reston, T.J.), **127,** 230

Advection

Palaeoclimate and structure: the most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland (Kukkonen, I.T., Šafanda, J.), **126,** 101

Aegean

Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area (Kalogeras, I.S., Burton, P.W.), **125,** 679
Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean (Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D.), **126,** 11
S–P-wave traveltime residuals from earthquakes and lateral inhomogeneity in the upper mantle beneath the Aegean and the Hellenic Trench near Crete (Taymaz, T.), **127,** 545

Aftershocks

Some features of aftershock patterns in Greece (Drakatos, G., Latoussakis, J.), **126,** 123
Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17
Applying the relative hypocentre location approach: where was the 1980 November 23 Irpinia earthquake? (Giardini, D., Basili, A., Boschi, E.), **127,** 605

Albania

Magnetobiostratigraphy of the Spathian to Anisian (Lower to Middle Triassic) Kçira section, Albania (Muttoni, G., Kent, D.V., Meço, S., Nicora, A., Gaetani, M., Balini, M., Germani, D., Rettori, R.), **127,** 503

Altimetry

An optimal procedure for deriving marine gravity from multi-satellite altimetry (Hwang, C., Parsons, B.), **125,** 705

Altyn Tagh fault

Rate of left-lateral movement along the easternmost segment of the Altyn Tagh fault, east of 96°E (China) (Meyer, B., Tapponnier, P., Gaudemer, Y., Peltzer, G., Shunmin, G., Zhitai, C.), **124,** 29

am indices

A model for the *am* (*Km*) planetary geomagnetic activity index and application to prediction (Francq, C., Menvielle, M.), **125,** 729

Analogue experiments

The dynamics of back-arc extension: an experimental approach to the opening of the Tyrrhenian Sea (Faccenna, C., Davy, P., Brun, J.-P., Funiciello, R., Giardini, D., Mattei, M., Nalpas, T.), **126,** 781

Anelasticity

Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **124,** 456

Anisotropy

Crack closure pressures inferred from ultrasonic drill-core measurements to 8 km depth in the KTB wells (Zang, A., Berckhemer, H., Lienert, M.), **124,** 657
A phenomenological model of orientational magnetic anisotropy of sediments (Kosterov, A.A., Shashkanov, V.A.), **125,** 149
Elastic wave propagation in a medium containing oriented inclusions with a changing aspect ratio: a physical model study (Ass'ad, J.M., McDonald, J.A., Tatham, R.H., Kusky, T.M.), **125,** 163
Seismic anisotropy within the uppermost mantle of southern Germany (Enderle, U., Mechie, J., Sobolev, S., Fuchs, K.), **125,** 747
Tectonic implications of *S*-wave anisotropy beneath SE Brazil (James, D.E., Assumpção, M.), **126,** 1
Anisotropy and *P*-wave tomography: a new approach for inverting teleseismic data from a dense array of stations (Grésillaud, A., Cara, M.), **126,** 77
Surface waves in layered anisotropic structures (Park, J.), **126,** 173
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
An analysis of shear waves observed in VSP data from the superdeep well at Kola, Russia (Digranes, P., Kristoffersen, Y., Karajev, N.), **126,** 545
Seismic anisotropy in the north-eastern US as a source of significant teleseismic *P* traveltime anomalies (Levin, V., Menke, W., Lerner-Lam, A.), **126,** 593
A 2.5-D time-domain elastodynamic equation for a general anisotropic medium (Takenaka, H., Kennett, B.L.N.), **127,** F1
Teleseismic imaging of subaxial flow at mid-ocean ridges: traveltime effects of anisotropic mineral texture in the mantle (Blackman, D.K., Kendall, J.-M., Dawson, P.R., Wenk, H.-R., Boyce, D., Phipps Morgan, J.), **127,** 415

Anisotropy of magnetic susceptibilty

Magnetic mineralogy changes in the Pleistocene marine sequence of Montalto di Castro (central Italy) and influences on the magnetic anisotropy (Lehman, B., Sagnotti, L., Winkler, A., Lo Cascio, C.), **127,** 529

Antarctica

A towed geophone system for use in snow-covered terrain (King, E.C., Bell, A.C.), **126,** 54

APW (apparent polar wander)

Palaeomagnetic-pole errors and a 'small-circle' assessment of the Gondwanan polar-wander path (Tarling, D.H., Abdeldayem, A.L.), **125,** 115

Anomalous low palaeomagnetic inclinations from Oligocene–Lower Miocene red beds of the south-west Tien Shan, Central Asia (Chauvin, A., Perroud, H., Bazhenov, M.L.), **126,** 303
North America during the Lower Cretaceous: new palaeomagnetic constraints from intrusions in New England (McEnroe, S.A.), **126,** 477

Archaeomagnetism

Microwave archaeointensities from Peruvian ceramics (Shaw, J., Walton, D., Yang, S., Rolph, T.C., Share, J.A.), **124,** 241

ARMA models

A model for the *am* (*Km*) planetary geomagnetic activity index and application to prediction (Francq, C., Menvielle, M.), **125,** 729

Array

Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays (Zielhuis, A., van der Hilst, R.D.), **127,** 1

Asphaltkalk

Palaeomagnetism of the Jurassic Asphaltkalk deposits, Holzen, northern Germany (Katz, B., Elmore, R.D., Engel, M.H., Leythaeuser, D.), **127,** 305

Asthenosphere

Imaging of shear-wave velocity structure beneath Iberia (Badal, J., Corchete, V., Payo, G., Pujades, L., Canas, J.A.), **124,** 591
Hotspot–ridge interaction in the Indian Ocean: constraints from Geosat/ERM altimetry (Grevemeyer, I.), **126,** 796

Atmosphere

Tide gauge data analysis of the pole tide in the North Sea (Xie, L., Dickman, S.R.), **126,** 863

Atmospheric angular momentum

Estimation of period and *Q* of the Chandler wobble (Furuya, M., Chao, B.F.), **127,** 693

Attenuation

Constant dielectric losses of ground-penetrating radar waves (Bano, M.), **124,** 279
Waveform analysis of Scholte modes in ocean sediment layers (Nolet, G.), **125,** 385
Determination of seismic-wave attenuation by complex trace analysis (Engelhard, L.), **125,** 608
Estimates of seismic attenuation using vibrational resonance and pulse transmission in four large blocks of rock (Blair, D.P.), **126,** 135
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
Multiple scattering of elastic waves from a continuous and heterogeneous region (Li, X., Hudson, J.A.), **126,** 845
Effects of fractures on seismic-wave velocity and attenuation (Boadu, F.K., Long, L.T.), **127,** 86

Australia

Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays (Zielhuis, A., van der Hilst, R.D.), **127,** 1

b values

Fault trace complexity, cumulative slip, and the shape of the magnitude–frequency distribution for strike-slip faults: a global survey (Stirling, M.W., Wesnousky, S.G., Shimazaki, K.), **124,** 833

Baltic Sea

Unusual sub-Moho events near Bornholm, Baltic Sea: modelling of BABEL seismic wide-angle data and a tectonic interpretation (Krishna, V.G., Meissner, R., Thomas, S.A.), **125,** 193

Barents Sea ice sheet

Deglacial land emergence and lateral upper-mantle heterogeneity in the Svalbard Archipelago—II. Extended results for high-resolution load models (Kaufmann, G., Wolf, D.), **127,** 125

Basin and Range

Broad-band modelling of regional seismograms: the Basin and Range crustal structure (Song, X.J., Helmberger, D.V., Zhao, L.), **125,** 15

Beam-forming

[illegible]ints on the velocity structure beneath the Tornquist–Teisseyre [illegible]m beam-forming analysis (Alsina, D., Snieder, R.), **126,**

[illegible]atigraphy

Magnetobiostratigraphy of the Spathian to Anisian (Lower to Middle Triassic) Kçira section, Albania (Muttoni, G., Kent, D.V., Meço, S., Nicora, A., Gaetani, M., Balini, M., Germani, D., Rettori, R.), **127,** 503

Body waves

Waveform inversions and the significance of surface-wave mode coupling (Marquering, H., Snieder, R., Nolet, G.), **124,** 258
Teleseismic body waveforms and receiver structures beneath seismic stations (Zhao, L.-S., Frohlich, C.), **124,** 525
How to reconcile body-wave and normal-mode reference earth models (Montagner, J.-P., Kennett, B.L.N.), **125,** 229
Estimation of finite-frequency waveforms through wavelength-dependent averaging of velocity (Lomax, A., Snieder, R.), **126,** 369
Mode-sum to ray-sum transformation in a spherical and an aspherical earth (Zhao, L., Dahlen, F.A.), **126,** 389
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Seismic anisotropy in the north-eastern US as a source of significant teleseismic *P* traveltime anomalies (Levin, V., Menke, W., Lerner-Lam, A.), **126,** 593
The radiation modes of a vertically varying half-space: a new representation of the complete Green's function in terms of modes (Maupin, V.), **126,** 762
Teleseismic imaging of subaxial flow at mid-ocean ridges: traveltime effects of anisotropic mineral texture in the mantle (Blackman, D.K., Kendall, J.-M., Dawson, P.R., Wenk, H.-R., Boyce, D., Phipps Morgan, J.), **127,** 415
Uniformly valid body-wave ray theory (Liu, X.-F., Tromp, J.), **127,** 461

Borehole geophysics

Propagation of tube waves generated by an external source in layered permeable rocks (Ionov, A.M., Maximov, G.A.), **124,** 888
Upper-crustal seismic velocity heterogeneity as derived from a variety of *P*-wave sonic logs (Holliger, K.), **125,** 813

Boundary Element Method

Wave diffraction in multilayered media with the Indirect Boundary Element Method: application to 3-D diffraction of long-period surface waves by 2-D lithospheric structures (Pedersen, H.A., Maupin, V., Campillo, M.), **125,** 545

Boundary layer

Numerical solution of boundary-layer problems (Buffett, B.A.), **126,** 291

Boundary-value problem

Formulation of the boundary-value problem for geoid determination with a higher-degree reference field (Martinec, Z, Vaníček, P.), **126,** 219

Brazil

Tectonic implications of *S*-wave anisotropy beneath SE Brazil (James, D.E., Assumpção, M.), **126,** 1

British Isles

Glacial rebound of the British Isles—III. Constraints on mantle viscosity (Lambeck, K., Johnston, P., Smither, C., Nakada, M.), **125,** 340

Broad band

Seismic source parameters in New Zealand from broad-band data (Nformi, S., Mao, W., Gubbins, D.), **124,** 289

Broad-band modelling of regional seismograms: the Basin and Range crustal structure (Song, X.J., Helmberger, D.V., Zhao, L.), **125,** 15

A 2-D velocity model of the Vrancea region in Romania: prediction of teleseismic waveforms (Perrot, J., Deschamps, A., Farra, V., Virieux, J.), **125,** 537

Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays (Zielhuis, A., van der Hilst, R.D.), **127,** 1

California Continental Borderland

Progressive growth of San Clemente Island, California, by blind thrust faulting: implications for fault slip partitioning in the California Continental Borderland (Ward, S.N., Valensise, G.), **126,** 712

Canary Islands

Reflection seismic investigations in the volcaniclastic apron of Gran Canaria and implications for its volcanic evolution (Funck, T., Dickmann, T., Rihm, R., Krastel, S., Lykke-Andersen, H., Schmincke, H.-U.), **125,** 519

Carbonates

Ancient platform carbonates with well-developed Lofer cyclicity: new candidates for magnetostratigraphy and geodynamically oriented palaeomagnetism (Márton, E., Haas, J.), **126,** 253

Caribbean plateau

Migration velocity analysis based on common-shot-depth migration applied to the seismic data of the Caribbean oceanic plateau (Leroy, S., Bitri, A., Mauffret, A.), **125,** 199

Cenozoic

Periodicity of magnetic intensities in magnetic anomaly profiles: the Cenozoic of the South Atlantic (D'Argenio, B., Iorio, M., Tarling, D.H.), **127,** 141

Central America

Large-magnitude Central American earthquakes, 1898–1994 (Ambraseys, N.N., Adams, R.D.), **127,** 665

Central Australia

Determination of crustal structure in central Australia by inversion of traveltime residuals (McQueen, H.W.S., Lambeck, K.), **126,** 645

Central Iran

Numerical modelling of the deformation of the Iranian plateau (Sobouti, F., Arkani-Hamed, J.), **126,** 805

Central Italy

Record of a previously unidentified short geomagnetic event from an upper Miocene sedimentary sequence, and preferred path of the transitional VGPs (Florindo, F.), **126,** F1

Chandler wobble

Tide gauge data analysis of the pole tide in the North Sea (Xie, L., Dickman, S.R.), **126,** 863

Significance of the fundamental mantle rotational relaxation mode in polar wander simulations (Vermeersen, L.L.A., Sabadini, R.), **127,** F5

Estimation of period and *Q* of the Chandler wobble (Furuya, M., Chao, B.F.), **127,** 693

Chemical remanent magnetization

Palaeomagnetism of the Jurassic Asphaltkalk deposits, Holzen, northern Germany (Katz, B., Elmore, R.D., Engel, M.H., Leythaeuser, D.), **127,** 305

Chicxulub

Yucatán karst features and the size of Chicxulub crater (Connors, M., Hildebrand, A.R., Pilkington, M., Ortiz-Aleman, C., Chavez, R.E., Urrutia-Fucugauchi, J., Graniel-Castro, E., Camara-Zi, A., Vasquez, J., Halpenny, J.F.), **127,** F11

China

Permo-Triassic magnetostratigraphy in China: the type section near Taiyuan, Shanxi Province, North China (Embleton, B.J.J., McElhinny, M.W., Ma, X., Zhang, Z., Li, Z.X.), **126,** 382

A detailed record of normal–reversed polarity transition obtained from a thick loess sequence at Jiuzhoutai, near Lanzhou, China (McIntosh, G., Rolph, T.C., Shaw, J., Dagley, P.), **127,** 651

Climate

Magnetic susceptibility of soil: an evaluation of conflicting theories using a national data set (Dearing, J.A., Hay, K.L., Baban, S.M.J., Huddleston, A.S., Wellington, E.M.H., Loveland, P.J.), **127,** 728

Collision belt

A lithospheric cross-section through the Swiss Alps—I.

Thermokinematic modelling of the Neoalpine orogeny (Okaya, N., Freeman, R., Kissling, E., Mueller, St.), **125,** 504
A lithospheric cross-section through the Swiss Alps—II. Constraints on the mechanical structure of a continent–continent collision zone (Okaya, N., Cloetingh, S., Mueller, St.), **127,** 399

Comment

Comment on 'The use of velocity spectrum for stacking receiver functions and imaging upper mantle discontinuities' by H. Gurrola, J. B. Minster and T. Owens (Kosarev, G., Petersen, N., Vinnik, L.), **124,** 637
Comment on 'Estimation of resolution and covariance for large matrix inversions' by J. Zhang and G. A. McMechan (Deal, M.M., Nolet, G.), **127,** 245
Comment on 'Simultaneous time-domain deconvolution with application to the computation of receiver functions' by H. Gurrola, G. E. Baker and J. B. Minster (Sacchi, M.D., Ulrych, T.J.), **127,** 253

Conductivity

Improved methods for solving for the magnetic field in E-polarization induction problems with fixed and staggered grids (Weaver, J.T., Pu, X.H., Agarwal, A.K.), **126,** 437

Continental deformation

Numerical modelling of the deformation of the Iranian plateau (Sobouti, F., Arkani-Hamed, J.), **126,** 805

Continental margin

V_P/V_S ratio structure of the Lofoten continental margin, northern Norway, and its geological implications (Kodaira, S., Bellenberg, M., Iwasaki, T., Kanazawa, T., Hirschleber, H.B., Shimamura, H.), **124,** 724
A tensile, flexural model for the initiation of subduction (Kemp, D.V., Stevenson, D.J.), **125,** 73
Côte d'Ivoire–Ghana margin: seismic imaging of passive rifted crust adjacent to a transform continental margin (Peirce, C., Whitmarsh, R.B., Scrutton, R.A., Pontoise, B., Sage, F., Mascle, J.), **125,** 781
The S reflector west of Galicia: the seismic signature of a detachment fault (Reston, T.J.), **127,** 230

Continents

Horizontal layered structure with heterogeneity beneath continents and island arcs from particle orbits of long-period *P* waves (Nishimura, T.), **127,** 773

Convection

Comparison between tomographic structures and models of convection in the upper mantle (Vacher, P., Mocquet, A., Sotin, C.), **124,** 45
Variational principles for the momentum equation of mantle convection with Newtonian and power-law rheologies (Matyska, C.), **126,** 281

Core–mantle boundary

Effects of a heterogeneous mantle on the velocity and magnetic fields at the top of the core (Buffett, B.A.), **125,** 303
Viscoelastic mantle density heterogeneity and core–mantle topography (Greff-Lefftz, M., Legros, H.), **125,** 567
Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599
Determination of a steady velocity field in a rotating frame of reference at the surface of the Earth's core (Davis, R.G., Whaler, K.A.), **126,** 92
Aliasing and noise in core-surface flow inversions (Celaya, M., Wahr, J.), **126,** 447
The influence of a density stratification and of an incompressibility modulus on the spectrum of core modes (Briers, R., Dehant, V., Leroy, O.), **127,** 588

Corrigendum

On some forced oscillations relating to Laplace's tidal equation (Sozou, C.), **124,** 647
Geomagnetism and age study of Tyrrhenian seamounts (Faggioni, O., Pinna, E., Savelli, C., Schreider, A.A.), **125,** 637
Fault trace complexity, cumulative slip, and the shape of the magnitude–frequency distribution for strike-slip faults: a global survey (Stirling, M.W., Wesnousky, S.G., Shimazaki, K.), **126,** 301
Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **126,** 903
Ambiguity in the solution to the velocity inversion problem and a solution by joint inversion of seismic refraction and wide-angle reflection times (Sain, K., Kaila, K.L.), **127,** 561

Côte d'Ivoire–Ghana

Côte d'Ivoire–Ghana margin: seismic imaging of passive rifted crust adjacent to a transform continental margin (Peirce, C., Whitmarsh, R.B., Scrutton, R.A., Pontoise, B., Sage, F., Mascle, J.), **125,** 781

Cracks

The mechanical properties of materials with interconnected cracks and pores (Hudson, J.A., Liu, E., Crampin, S.), **124,** 105
Crack closure pressures inferred from ultrasonic drill-core measurements to 8 km depth in the KTB wells (Zang, A., Berckhemer, H., Lienert, M.), **124,** 657
Apparent critical slip displacement caused by the existence of a fault zone (Yamashita, T., Fukuyama, E.), **125,** 459
Upper-crustal seismic velocity heterogeneity as derived from a variety of *P*-wave sonic logs (Holliger, K.), **125,** 813
An analysis of shear waves observed in VSP data from the superdeep well at Kola, Russia (Digranes, P., Kristoffersen, Y., Karajev, N.), **126,** 545
Surface-wave propagation in a cracked poroelastic half-space lying under a uniform layer of fluid (Sharma, M.D.), **127,** 31
Hydraulic crack propagation in a porous medium (Fowler, A.C., Scott, D.R.), **127,** 595
The paradox of smooth and abrupt bends in two-dimensional in-plane shear-crack mechanics (Tada, T., Yamashita, T.), **127,** 795

Cretaceous

Migration velocity analysis based on common-shot-depth migration applied to the seismic data of the Caribbean oceanic plateau (Leroy, S., Bitri, A., Mauffret, A.), **125,** 199
North America during the Lower Cretaceous: new palaeomagnetic constraints from intrusions in New England (McEnroe, S.A.), **126,** 477

Crosswell

Resolution limits for crosswell migration and traveltime tomography (Schuster, G.T.), **127,** 427

Crust

Observation of converted Moho reflections in the north-west of the Iberian Peninsula (Téllez, J., Córdoba, D.), **124,** 7
Seismic velocities of the uppermost igneous crust versus age (Grevemeyer, I., Weigel, W.), **124,** 631
Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area (Kalogeras, I.S., Burton, P.W.), **125,** 679

Reinterpretation of the RRISP-77 Iceland shear-wave profiles (Menke, W., Brandsdóttir, B., Einarsson, P., Bjarnason, I.Th.), **126,** 166
Mechanisms of isostatic compensation of the Zimbabwe and Kaapvaal cratons, the Limpopo Belt and the Mozambique basin (Gwavava, O., Swain, C.J., Podmore, F.), **127,** 635

Crustal deformation

A lithospheric cross-section through the Swiss Alps—I. Thermokinematic modelling of the Neoalpine orogeny (Okaya, N., Freeman, R., Kissling, E., Mueller, St.), **125,** 504
Repeated GPS surveys across the Ionian Sea: evidence of crustal deformations (Anzidei, M., Baldi, P., Casula, G., Crespi, M., Riguzzi, F.), **127,** 257
A lithospheric cross-section through the Swiss Alps—II. Constraints on the mechanical structure of a continent–continent collision zone (Okaya, N., Cloetingh, S., Mueller, St.), **127,** 399

Crustal structure

Two-dimensional velocity models from wide-angle seismic data by wavefield inversion (Pratt, R.G., Song, Z.-M., Williamson, P., Warner, M.), **124,** 323
Teleseismic body waveforms and receiver structures beneath seismic stations (Zhao, L.-S., Frohlich, C.), **124,** 525
V_P/V_S ratio structure of the Lofoten continental margin, northern Norway, and its geological implications (Kodaira, S., Bellenberg, M., Iwasaki, T., Kanazawa, T., Hirschleber, H.B., Shimamura, H.), **124,** 724
Broad-band modelling of regional seismograms: the Basin and Range crustal structure (Song, X.J., Helmberger, D.V., Zhao, L.), **125,** 15
Direct calculation of interval velocities and layer thicknesses from seismic wide-angle reflection times (Sain, K., Kaila, K.L.), **125,** 30
Thin crust on the flanks of the slow-spreading Southwest Indian Ridge (Minshull, T.A., White, R.S.), **125,** 139
Application of very fast simulated annealing to the determination of the crustal structure beneath Tibet (Zhao, L.-S., Sen, M.K., Stoffa, P., Frohlich, C.), **125,** 355
Determination of crustal structure in central Australia by inversion of traveltime residuals (McQueen, H.W.S., Lambeck, K.), **126,** 645
Average lithospheric structure of southern Africa (Qiu, X., Priestley, K., McKenzie, D.), **127,** 563

Cryptochron

Record of a previously unidentified short geomagnetic event from an upper Miocene sedimentary sequence, and preferred path of the transitional VGPs (Florindo, F.), **126,** F1

Deep focus earthquakes

Microstructural development during nucleation and growth (Riedel, M.R., Karato, S.), **125,** 397
State of stress in the Southern Tyrrhenian subduction zone from fault-plane solutions (Frepoli, A., Selvaggi, G., Chiarabba, C., Amato, A.), **125,** 879
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515

Deep seismic reflection

Direct calculation of interval velocities and layer thicknesses from seismic wide-angle reflection times (Sain, K., Kaila, K.L.), **125,** 30

Deflection of the vertical

An optimal procedure for deriving marine gravity from multi-satellite altimetry (Hwang, C., Parsons, B.), **125,** 705

Deformation

Coseismic deformation from earthquake faulting on a layered spherical earth (Pollitz, F.F.), **125,** 1
Deformation fields around a fault embedded in a non-linear ductile medium (Barr, T.D., Houseman, G.A.), **125,** 473
Present-day deformation of the Dauphiné Alpine and Subalpine massifs (SE France) (Martinod, J., Jouanne, F., Taverna, J., Ménard, G., Gamond, J.-F., Darmendrail, X., Notter, J.-C., Basile, C.), **127,** 189
Gaussian curvature and the relationship between the shape and the deformation of the Tonga slab (Nothard, S., McKenzie, D., Haines, J., Jackson, J.), **127,** 311
Distributed deformation in the subducting lithosphere at Tonga (Nothard, S., Haines, J., Jackson, J., Holt, B.), **127,** 328
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—I. Melt extraction by compaction and deformation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 616
Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735

Demagnetization

On the effect of low-temperature demagnetization on TRMs and pTRMs (Shcherbakova, V.V., Shcherbakov, V.P., Schmidt, P.W., Prevot, M.), **127,** 379

Density

Two-dimensional geoid modelling: some remarks on Chapman's algorithm (Ayala, C., Fernàndez, M., Torné, M., Pous, J.), **127,** 542

Diapir

Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—II. Rayleigh–Taylor instability and sedimentation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 627

Diffraction

On the effect of diffraction on traveltime measurements (Gudmundsson, O.), **124,** 304

Dilatation

Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735

Diurnal variation

Marine magnetic data processing in equatorial regions off Ghana (Buchanan, S.K., Scrutton, R.A., Edwards, R.A., Whitmarsh, R.B.), **125,** 123
On the derivation of the Earth's conductivity structure by means of spherical cap harmonic analysis (Torta, J.M., De Santis, A.), **127,** 441

Domain structure

On the effect of low-temperature demagnetization on TRMs and pTRMs (Shcherbakova, V.V., Shcherbakov, V.P., Schmidt, P.W., Prevot, M.), **127,** 379

Drag cable

A towed geophone system for use in snow-covered terrain (King, E.C., Bell, A.C.), **126,** 54

Drill cores

Crack closure pressures inferred from ultrasonic drill-core measurements to 8 km depth in the KTB wells (Zang, A., Berckhemer, H., Lienert, M.), **124,** 657

Dynamics

Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599

Earth models

How to reconcile body-wave and normal-mode reference earth models (Montagner, J.-P., Kennett, B.L.N.), **125,** 229

Earthquake intensity

Seismic moment assessment of earthquakes in stable continental regions—II. Historical seismicity (Johnston, A.C.), **125,** 639
Seismic moment assessment of earthquakes in stable continental regions—III. New Madrid 1811–1812, Charleston 1886 and Lisbon 1755 (Johnston, A.C.), **126,** 314

Earthquake location

Gaussian curvature and the relationship between the shape and the deformation of the Tonga slab (Nothard, S., McKenzie, D., Haines, J., Jackson, J.), **127,** 311
Applying the relative hypocentre location approach: where was the 1980 November 23 Irpinia earthquake? (Giardini, D., Basili, A., Boschi, E.), **127,** 605

Earthquake prediction

The cyclic and fractal seismic series preceding an m_b 4.8 earthquake on 1980 February 14 near the Virgin Islands (Varnes, D.J., Bufe, C.G.), **124,** 149
Some features of aftershock patterns in Greece (Drakatos, G., Latoussakis, J.), **126,** 123
Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17
Quantitative mapping of a precursory seismic quiescence to the Izu–Oshima 1990 (M6.5) earthquake, Japan (Wyss, M., Shimazaki, K., Urabe, T.), **127,** 735

Earthquake-source mechanism

Relative moment tensor inversion based on ray theory: theory and synthetic tests (Dahm, T.), **124,** 245
Seismic moment assessment of earthquakes in stable continental regions—III. New Madrid 1811–1812, Charleston 1886 and Lisbon 1755 (Johnston, A.C.), **126,** 314
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors (Cespuglio, G., Campus, P., Šílený, J.), **126,** 620
Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515

Earthquakes

Detecting slow, long-duration slip of large earthquakes using very long-period orbital surface waves (Li, X.-Q., Nábělek, J.), **124,** 483
Fault trace complexity, cumulative slip, and the shape of the magnitude–frequency distribution for strike-slip faults: a global survey (Stirling, M.W., Wesnousky, S.G., Shimazaki, K.), **124,** 833
Induced stresses and fault potential in eastern Canada due to a disc load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **125,** 415
Apparent critical slip displacement caused by the existence of a fault zone (Yamashita, T., Fukuyama, E.), **125,** 459
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—I (Lallemant, S.J., Le Pichon, X., Thoué, F., Henry, P., Saito, S.), **126,** 871
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—II (Pollitz, F.F., Le Pichon, X., Lallemant, S.J.), **126,** 882
Elastic full-waveform inversion for earthquake source parameters (Wu, Y., McMechan, G.A.), **127,** 61
Frequency-dependent relocation of the 1992 Nicaragua slow earthquake: an empirical Green's function approach (Ihmlé, P.F.), **127,** 75
Induced stresses and fault potential in eastern Canada due to a realistic load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **127,** 215

Earth's core

Is the non-dipole magnetic field random? (Walker, A.D., Backus, G.E.), **124,** 315
Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599
The subseismic approximation in core dynamics—II. Love numbers and surface gravity (Crossley, D.J., Rochester, M.G.), **125,** 830
Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields (Jackson, A., Hide, R.), **125,** 925
Aliasing and noise in core-surface flow inversions (Celaya, M., Wahr, J.), **126,** 447
Experiments on Joule heating and the dissipation of energy in the Earth's core (Brito, D., Cardin, P., Nataf, H.-C., Olson, P.), **127,** 339
The influence of a density stratification and of an incompressibility modulus on the spectrum of core modes (Briers, R., Dehant, V., Leroy, O.), **127,** 588

Earth's interior

Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599

Earth's magnetic field

Annual variation of the geomagnetic field (Malin, S.R.C, Winch, D.E.), **124,** 170
Is the non-dipole magnetic field random? (Walker, A.D., Backus, G.E.), **124,** 315
Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields (Jackson, A., Hide, R.), **125,** 925
Anomalous low palaeomagnetic inclinations from Oligocene–Lower Miocene red beds of the south-west Tien Shan (Chauvin, A., Perroud, H., Bazhenov, M.L.), **126,** 303
Experiments on Joule heating and the dissipation of energy in the Earth's core (Brito, D., Cardin, P., Nataf, H.-C., Olson, P.), **127,** 339

Earth's rotation

Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599
Path of the mean rotational pole from 1899 to 1994 (McCarthy, D.D., Luzum, B.J.), **125,** 623
Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735
Tide gauge data analysis of the pole tide in the North Sea (Xie, L., Dickman, S.R.), **126,** 863
Postglacial sea-level change on a rotating Earth: first results from a gravitationally self-consistent sea-level equation (Milne, G.A., Mitrovica, J.X.), **126,** F13

Reinterpretation of the RRISP-77 Iceland shear-wave profiles (Menke, W., Brandsdóttir, B., Einarsson, P., Bjarnason, I.Th.), **126,** 166
Mechanisms of isostatic compensation of the Zimbabwe and Kaapvaal cratons, the Limpopo Belt and the Mozambique basin (Gwavava, O., Swain, C.J., Podmore, F.), **127,** 635

Crustal deformation

A lithospheric cross-section through the Swiss Alps—I. Thermokinematic modelling of the Neoalpine orogeny (Okaya, N., Freeman, R., Kissling, E., Mueller, St.), **125,** 504
Repeated GPS surveys across the Ionian Sea: evidence of crustal deformations (Anzidei, M., Baldi, P., Casula, G., Crespi, M., Riguzzi, F.), **127,** 257
A lithospheric cross-section through the Swiss Alps—II. Constraints on the mechanical structure of a continent–continent collision zone (Okaya, N., Cloetingh, S., Mueller, St.), **127,** 399

Crustal structure

Two-dimensional velocity models from wide-angle seismic data by wavefield inversion (Pratt, R.G., Song, Z.-M., Williamson, P., Warner, M.), **124,** 323
Teleseismic body waveforms and receiver structures beneath seismic stations (Zhao, L.-S., Frohlich, C.), **124,** 525
V_P/V_S ratio structure of the Lofoten continental margin, northern Norway, and its geological implications (Kodaira, S., Bellenberg, M., Iwasaki, T., Kanazawa, T., Hirschleber, H.B., Shimamura, H.), **124,** 724
Broad-band modelling of regional seismograms: the Basin and Range crustal structure (Song, X.J., Helmberger, D.V., Zhao, L.), **125,** 15
Direct calculation of interval velocities and layer thicknesses from seismic wide-angle reflection times (Sain, K., Kaila, K.L.), **125,** 30
Thin crust on the flanks of the slow-spreading Southwest Indian Ridge (Minshull, T.A., White, R.S.), **125,** 139
Application of very fast simulated annealing to the determination of the crustal structure beneath Tibet (Zhao, L.-S., Sen, M.K., Stoffa, P., Frohlich, C.), **125,** 355
Determination of crustal structure in central Australia by inversion of traveltime residuals (McQueen, H.W.S., Lambeck, K.), **126,** 645
Average lithospheric structure of southern Africa (Qiu, X., Priestley, K., McKenzie, D.), **127,** 563

Cryptochron

Record of a previously unidentified short geomagnetic event from an upper Miocene sedimentary sequence, and preferred path of the transitional VGPs (Florindo, F.), **126,** F1

Deep focus earthquakes

Microstructural development during nucleation and growth (Riedel, M.R., Karato, S.), **125,** 397
State of stress in the Southern Tyrrhenian subduction zone from fault-plane solutions (Frepoli, A., Selvaggi, G., Chiarabba, C., Amato, A.), **125,** 879
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515

Deep seismic reflection

Direct calculation of interval velocities and layer thicknesses from seismic wide-angle reflection times (Sain, K., Kaila, K.L.), **125,** 30

Deflection of the vertical

An optimal procedure for deriving marine gravity from multi-satellite altimetry (Hwang, C., Parsons, B.), **125,** 705

Deformation

Coseismic deformation from earthquake faulting on a layered spherical earth (Pollitz, F.F.), **125,** 1
Deformation fields around a fault embedded in a non-linear ductile medium (Barr, T.D., Houseman, G.A.), **125,** 473
Present-day deformation of the Dauphiné Alpine and Subalpine massifs (SE France) (Martinod, J., Jouanne, F., Taverna, J., Ménard, G., Gamond, J.-F., Darmendrail, X., Notter, J.-C., Basile, C.), **127,** 189
Gaussian curvature and the relationship between the shape and the deformation of the Tonga slab (Nothard, S., McKenzie, D., Haines, J., Jackson, J.), **127,** 311
Distributed deformation in the subducting lithosphere at Tonga (Nothard, S., Haines, J., Jackson, J., Holt, B.), **127,** 328
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—I. Melt extraction by compaction and deformation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 616
Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735

Demagnetization

On the effect of low-temperature demagnetization on TRMs and pTRMs (Shcherbakova, V.V., Shcherbakov, V.P., Schmidt, P.W., Prevot, M.), **127,** 379

Density

Two-dimensional geoid modelling: some remarks on Chapman's algorithm (Ayala, C., Fernàndez, M., Torné, M., Pous, J.), **127,** 542

Diapir

Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—II. Rayleigh–Taylor instability and sedimentation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 627

Diffraction

On the effect of diffraction on traveltime measurements (Gudmundsson, O.), **124,** 304

Dilatation

Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735

Diurnal variation

Marine magnetic data processing in equatorial regions off Ghana (Buchanan, S.K., Scrutton, R.A., Edwards, R.A., Whitmarsh, R.B.), **125,** 123
On the derivation of the Earth's conductivity structure by means of spherical cap harmonic analysis (Torta, J.M., De Santis, A.), **127,** 441

Domain structure

On the effect of low-temperature demagnetization on TRMs and pTRMs (Shcherbakova, V.V., Shcherbakov, V.P., Schmidt, P.W., Prevot, M.), **127,** 379

Drag cable

A towed geophone system for use in snow-covered terrain (King, E.C., Bell, A.C.), **126,** 54

Drill cores

Crack closure pressures inferred from ultrasonic drill-core measurements to 8 km depth in the KTB wells (Zang, A., Berckhemer, H., Lienert, M.), **124,** 657

Dynamics

Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599

Earth models

How to reconcile body-wave and normal-mode reference earth models (Montagner, J.-P., Kennett, B.L.N.), **125,** 229

Earthquake intensity

Seismic moment assessment of earthquakes in stable continental regions—II. Historical seismicity (Johnston, A.C.), **125,** 639
Seismic moment assessment of earthquakes in stable continental regions—III. New Madrid 1811–1812, Charleston 1886 and Lisbon 1755 (Johnston, A.C.), **126,** 314

Earthquake location

Gaussian curvature and the relationship between the shape and the deformation of the Tonga slab (Nothard, S., McKenzie, D., Haines, J., Jackson, J.), **127,** 311
Applying the relative hypocentre location approach: where was the 1980 November 23 Irpinia earthquake? (Giardini, D., Basili, A., Boschi, E.), **127,** 605

Earthquake prediction

The cyclic and fractal seismic series preceding an m_b 4.8 earthquake on 1980 February 14 near the Virgin Islands (Varnes, D.J., Bufe, C.G.), **124,** 149
Some features of aftershock patterns in Greece (Drakatos, G., Latoussakis, J.), **126,** 123
Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17
Quantitative mapping of a precursory seismic quiescence to the Izu–Oshima 1990 (*M*6.5) earthquake, Japan (Wyss, M., Shimazaki, K., Urabe, T.), **127,** 735

Earthquake-source mechanism

Relative moment tensor inversion based on ray theory: theory and synthetic tests (Dahm, T.), **124,** 245
Seismic moment assessment of earthquakes in stable continental regions—III. New Madrid 1811–1812, Charleston 1886 and Lisbon 1755 (Johnston, A.C.), **126,** 314
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors (Cespuglio, G., Campus, P., Šílený, J.), **126,** 620
Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515

Earthquakes

Detecting slow, long-duration slip of large earthquakes using very long-period orbital surface waves (Li, X.-Q., Nábělek, J.), **124,** 483
Fault trace complexity, cumulative slip, and the shape of the magnitude–frequency distribution for strike-slip faults: a global survey (Stirling, M.W., Wesnousky, S.G., Shimazaki, K.), **124,** 833
Induced stresses and fault potential in eastern Canada due to a disc load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **125,** 415
Apparent critical slip displacement caused by the existence of a fault zone (Yamashita, T., Fukuyama, E.), **125,** 459
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—I (Lallemant, S.J., Le Pichon, X., Thoué, F., Henry, P., Saito, S.), **126,** 871
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—II (Pollitz, F.F., Le Pichon, X., Lallemant, S.J.), **126,** 882
Elastic full-waveform inversion for earthquake source parameters (Wu, Y., McMechan, G.A.), **127,** 61
Frequency-dependent relocation of the 1992 Nicaragua slow earthquake: an empirical Green's function approach (Ihmlé, P.F.), **127,** 75
Induced stresses and fault potential in eastern Canada due to a realistic load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **127,** 215

Earth's core

Is the non-dipole magnetic field random? (Walker, A.D., Backus, G.E.), **124,** 315
Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599
The subseismic approximation in core dynamics—II. Love numbers and surface gravity (Crossley, D.J., Rochester, M.G.), **125,** 830
Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields (Jackson, A., Hide, R.), **125,** 925
Aliasing and noise in core-surface flow inversions (Celaya, M., Wahr, J.), **126,** 447
Experiments on Joule heating and the dissipation of energy in the Earth's core (Brito, D., Cardin, P., Nataf, H.-C., Olson, P.), **127,** 339
The influence of a density stratification and of an incompressibility modulus on the spectrum of core modes (Briers, R., Dehant, V., Leroy, O.), **127,** 588

Earth's interior

Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599

Earth's magnetic field

Annual variation of the geomagnetic field (Malin, S.R.C, Winch, D.E.), **124,** 170
Is the non-dipole magnetic field random? (Walker, A.D., Backus, G.E.), **124,** 315
Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields (Jackson, A., Hide, R.), **125,** 925
Anomalous low palaeomagnetic inclinations from Oligocene–Lower Miocene red beds of the south-west Tien Shan (Chauvin, A., Perroud, H., Bazhenov, M.L.), **126,** 303
Experiments on Joule heating and the dissipation of energy in the Earth's core (Brito, D., Cardin, P., Nataf, H.-C., Olson, P.), **127,** 339

Earth's rotation

Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599
Path of the mean rotational pole from 1899 to 1994 (McCarthy, D.D., Luzum, B.J.), **125,** 623
Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735
Tide gauge data analysis of the pole tide in the North Sea (Xie, L., Dickman, S.R.), **126,** 863
Postglacial sea-level change on a rotating Earth: first results from a gravitationally self-consistent sea-level equation (Milne, G.A., Mitrovica, J.X.), **126,** F13

East African Rift System

Deep crustal earthquakes and active faults along the Rukwa trough, eastern Africa (Camelbeeck, T., Iranga, M.D.), **124,** 612

Eastern Finland

Palaeoclimate and structure: the most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland (Kukkonen, I.T., Šafanda, J.), **126,** 101

Eigentheory

The influence of a density stratification and of an incompressibility modulus on the spectrum of core modes (Briers, R., Dehant, V., Leroy, O.), **127,** 588

Elastic-wave theory

Free-mode surface-wave computations (Buchen, P.W., Ben-Hador, R.), **124,** 869
A 2.5-D time-domain elastodynamic equation for plane-wave incidence (Takenaka, H., Kennett, B.L.N.), **125,** F5
Transmission properties of a plane fault (Hudson, J.A., Liu, E., Crampin, S.), **125,** 559
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
The radiation modes of a vertically varying half-space: a new representation of the complete Green's function in terms of modes (Maupin, V.), **126,** 762
A 2.5-D time-domain elastodynamic equation for a general anisotropic medium (Takenaka, H., Kennett, B.L.N.), **127,** F1
Reciprocity theorems for one-way wavefields (Wapenaar, C.P.A., Grimbergen, J.L.T.), **127,** 169

Elastodynamics

Multiple scattering of elastic waves from a continuous and heterogeneous region (Li, X., Hudson, J.A.), **126,** 845

Electrical conductivity

Magnetotelluric soundings across the South Island of New Zealand: electrical structure associated with the orogen of the Southern Alps (Ingham, M.), **124,** 134
Causes of high crustal conductivity beneath the Iapetus suture zone in Great Britain (Banks, R.J., Livelybrooks, D., Jones, P., Longstaff, R.), **124,** 433
Induced-polarization modelling using complex electrical conductivities (Weller, A., Seichter, M., Kampke, A.), **127,** 387
Inversion of magnetotelluric soundings using a new integral form of the induction equation (Esparza, F.J., Gómez-Treviño, E.), **127,** 452
On the derivation of the Earth's conductivity structure by means of spherical cap harmonic analysis (Torta, J.M., De Santis, A.), **127,** 441
Approximate depth averages of electrical conductivity from surface magnetotelluric data (Gómez-Treviño, E.), **127,** 762

Electrical resistivity

Induced-polarization modelling using complex electrical conductivities (Weller, A., Seichter, M., Kampke, A.), **127,** 387

Electromagnetic diffusion

A general correspondence principle for time-domain electromagnetic wave and diffusion fields (de Hoop, A.T.), **127,** 757

Electromagnetic induction

B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—I. Solution by the Wiener–Hopf technique, with limiting forms (Dawson, T.W.), **124,** 556
B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—II. Solution by the mode-matching method, the fields above the conductors, and example results (Dawson, T.W.), **124,** 577
Improved methods for solving for the magnetic field in E-polarization induction problems with fixed and staggered grids (Weaver, J.T., Pu, X.H., Agarwal, A.K.), **126,** 437
On the derivation of the Earth's conductivity structure by means of spherical cap harmonic analysis (Torta, J.M., De Santis, A.), **127,** 441
Inversion of magnetotelluric soundings using a new integral form of the induction equation (Esparza, F.J., Gómez-Treviño, E.), **127,** 452
Approximate depth averages of electrical conductivity from surface magnetotelluric data (Gómez-Treviño, E.), **127,** 762

Electromagnetic methods

Robust smooth magnetotelluric transfer functions (Larsen, J.C., Mackie, R.L., Manzella, A., Fiordelisi, A., Rieven, S.), **124,** 801
Approximate sensitivities for the electromagnetic inverse problem (Farquharson, C.G., Oldenburg, D.W.), **126,** 235
A general correspondence principle for time-domain electromagnetic wave and diffusion fields (de Hoop, A.T.), **127,** 757

Electromagnetic modelling

B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—I. Solution by the Wiener–Hopf technique, with limiting forms (Dawson, T.W.), **124,** 556
B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—II. Solution by the mode-matching method, the fields above the conductors, and example results (Dawson, T.W.), **124,** 577

Ellipsoidal harmonics

Formulation of the boundary-value problem for geoid determination with a higher-degree reference field (Martinec, Z, Vaníček, P.), **126,** 219

Ellipticity corrections

Ellipticity corrections for seismic phases (Kennett, B.L.N., Gudmundsson, O.), **127,** 40

Energy transport

Multiple scattering of elastic waves from a continuous and heterogeneous region (Li, X., Hudson, J.A.), **126,** 845

Erratum

New insights into the evolution of the Lomonosov Ridge and the Eurasian Basin (Jokat, W., Weigelt, E., Kristoffersen, Y., Rasmussen, T., Schöne, T.), **125,** 323
Pedogenic and lithogenic contributions to the magnetic susceptibility record of the Chinese loess/palaeosol sequence (Fine, P., Verosub, K.L., Singer, M.J.), **126,** 904

Error estimate

Seismic moment tensor resolution by waveform inversion of a few local noisy records—I. Synthetic tests (Šílený, J., Campus, P., Panza, G.F.), **126,** 605

European Geotraverse

A lithospheric cross-section through the Swiss Alps—I. Thermokinematic modelling of the Neoalpine orogeny (Okaya, N., Freeman, R., Kissling, E., Mueller, St.), **125,** 504
A lithospheric cross-section through the Swiss Alps—II. Constraints on the mechanical structure of a continent–continent collision zone (Okaya, N., Cloetingh, S., Mueller, St.), **127,** 399

Explosion seismology

Waveform inversion of marine reflection seismograms for *P* impedance and Poisson's ratio (Igel, H., Djikpéssé, H., Tarantola, A.), **124,** 363
2.5-D modelling of elastic waves using the pseudospectral method (Furumura, T., Takenaka, H.), **124,** 820
Empirical analysis of digital seismograms from a cluster of explosions at regional distances for characterizing multiple explosions (Kim, S.G., Wu, Z.), **125,** 491

Fault model

Deformation fields around a fault embedded in a non-linear ductile medium (Barr, T.D., Houseman, G.A.), **125,** 473
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—II (Pollitz, F.F., Le Pichon, X., Lallemant, S.J.), **126,** 882
Free-surface formulation of mantle convection—II. Implication for subduction-zone observables (Gurnis, M., Eloy, C., Zhong, S.), **127,** 719

Fault slip

Rate of left-lateral movement along the easternmost segment of the Altyn Tagh fault, east of 96°E (China) (Meyer, B., Tapponnier, P., Gaudemer, Y., Peltzer, G., Shunmin, G., Zhitai, C.), **124,** 29
Fault trace complexity, cumulative slip, and the shape of the magnitude–frequency distribution for strike-slip faults: a global survey (Stirling, M.W., Wesnousky, S.G., Shimazaki, K.), **124,** 833
Pore-pressure rise, frictional strength, and fault slip: one-dimensional interaction models (Lee, T.-C.), **125,** 371
Apparent critical slip displacement caused by the existence of a fault zone (Yamashita, T., Fukuyama, E.), **125,** 459
Deformation fields around a fault embedded in a non-linear ductile medium (Barr, T.D., Houseman, G.A.), **125,** 473

Fault tectonics

Unusual sub-Moho events near Bornholm, Baltic Sea: modelling of BABEL seismic wide-angle data and a tectonic interpretation (Krishna, V.G., Meissner, R., Thomas, S.A.), **125,** 193
Progressive growth of San Clemente Island, California, by blind thrust faulting: implications for fault slip partitioning in the California Continental Borderland (Ward, S.N., Valensise, G.), **126,** 712
The S reflector west of Galicia: the seismic signature of a detachment fault (Reston, T.J.), **127,** 230

Fault-plane solutions

An improved method for the determination of the tectonic stress field from focal mechanism data (Yin, Z.-M.), **125,** 841
Estimates of stress directions by inversion of earthquake fault-plane solutions in Sicily (Caccamo, D., Neri, G., Sarao, A., Wyss, M.), **125,** 857
State of stress in the Southern Tyrrhenian subduction zone from fault-plane solutions (Frepoli, A., Selvaggi, G., Chiarabba, C., Amato, A.), **125,** 879
A microseismic study in the western part of the Gulf of Corinth (Greece): implications for large-scale normal faulting mechanisms (Rigo, A., Lyon-Caen, H., Armijo, R., Deschamps, A., Hatzfeld, D., Makropoulos, K., Papadimitriou, P., Kassaras, I.), **126,** 663

Faulting

Induced stresses and fault potential in eastern Canada due to a disc load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **125,** 415
Multifractal analysis of the spatial distribution of earthquakes in southern Italy (Godano, C., Alonzo, M.L., Bottari, A.), **125,** 901
Flexure associated with planar faulting (Bott, M.H.P.), **126,** F21
Constraints on the velocity structure beneath the Tornquist–Teisseyre Zone from beam-forming analysis (Alsina, D., Snieder, R.), **126,** 205
Induced stresses and fault potential in eastern Canada due to a realistic load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **127,** 215

Fennoscandia

Note on estimates of the glacial–isostatic decay spectrum for Fennoscandia (Wolf, D.), **127,** 801

Fennoscandian uplift

Viscoelastic relaxation of a Burgers half-space: implications for the interpretation of the Fennoscandian uplift (Rümpker, G., Wolf, D.), **124,** 541
Recent postglacial rebound, gravity change and mantle flow in Fennoscandia (Ekman, M., Mäkinen, J.), **126,** 229

Figure of earth

RATGP95: a harmonic development of the tide-generating potential using an analytical method (Roosbeek, F.), **126,** 197

Finite-difference methods

Two-dimensional velocity models from wide-angle seismic data by wavefield inversion (Pratt, R.G., Song, Z.-M., Williamson, P., Warner, M.), **124,** 323
Waveform inversion of marine reflection seismograms for *P* impedance and Poisson's ratio (Igel, H., Djikpéssé, H., Tarantola, A.), **124,** 363
Improved methods for solving for the magnetic field in E-polarization induction problems with fixed and staggered grids (Weaver, J.T., Pu, X.H., Agarwal, A.K.), **126,** 437
Induced-polarization modelling using complex electrical conductivities (Weller, A., Seichter, M., Kampke, A.), **127,** 387
The effect of random isotropic inhomogeneities on the phase velocity of seismic waves (Shapiro, S.A., Schwarz, R., Gold, N.), **127,** 783

Finite-element methods

Calculating the two-dimensional magnetotelluric Jacobian in finite elements using reciprocity (Pastana de Lugão, P., Wannamaker, P.E.), **127,** 806

Flexure

Flexure associated with planar faulting (Bott, M.H.P.), **126,** F21

Flexure of the lithosphere

Thermomechanical structure of European continental lithosphere: constraints from rheological profiles and EET estimates (Cloetingh, S., Burov, E.B.), **124,** 695
Analytical solutions for 3-D flexural deformation of semi-infinite elastic plates (Wessel, P.), **124,** 907
A tensile, flexural model for the initiation of subduction (Kemp, D.V., Stevenson, D.J.), **125,** 73

Flow imaging

Determination of a steady velocity field in a rotating frame of reference at the surface of the Earth's core (Davis, R.G., Whaler, K.A.), **126,** 92

Fluid dynamics

Non-linear temperature and pressure waves in fluid-saturated porous rocks (Natale, G., Salusti, E.), **124,** 649
Tide gauge data analysis of the pole tide in the North Sea (Xie, L., Dickman, S.R.), **126,** 863

Focal depth

Deep crustal earthquakes and active faults along the Rukwa trough, eastern Africa (Camelbeeck, T., Iranga, M.D.), **124,** 612
Thermomechanical structure of European continental lithosphere: constraints from rheological profiles and EET estimates (Cloetingh, S., Burov, E.B.), **124,** 695

Foreshocks

Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17

Fourier transforms

Three-dimensional micromagnetic calculations for magnetite using FFT (Fabian, K., Kirchner, A., Williams, W., Heider, F., Leibl, T., Hubert, A.), **124,** 89
Combination of ERS-1 and TOPEX altimetry for precise geoid and gravity recovery in the Mediterranean Sea (Arabelos, D., Tziavos, I.N.), **125,** 285
An optimal procedure for deriving marine gravity from multi-satellite altimetry (Hwang, C., Parsons, B.), **125,** 705
Induced-polarization modelling using complex electrical conductivities (Weller, A., Seichter, M., Kampke, A.), **127,** 387

Fractals

Depth estimation from the scaling power spectrum of potential fields? (Maus, S., Dimri, V.), **124,** 113
The cyclic and fractal seismic series preceding an m_b 4.8 earthquake on 1980 February 14 near the Virgin Islands (Varnes, D.J., Bufe, C.G.), **124,** 149
Effect of limited data sets in evaluating the scaling properties of spatially distributed data: an example from mining-induced seismic activity (Eneva, M.), **124,** 773
Microstructural development during nucleation and growth (Riedel, M.R., Karato, S.), **125,** 397
Multifractal analysis of the spatial distribution of earthquakes in southern Italy (Godano, C., Alonzo, M.L., Bottari, A.), **125,** 901
Upper-crustal seismic velocity heterogeneity as derived from a variety of *P*-wave sonic logs (Holliger, K.), **125,** 813
Chaotic behaviour of coda waves in the eastern Pyrenees (Correig, A.M., Urquizu, M.), **126,** 113
Simulated envelopes of non-isotropically scattered body waves as compared to observed ones: another manifestation of fractal heterogeneity (Gusev, A.A., Abubakirov, I.R.), **127,** 49
The effect of random isotropic inhomogeneities on the phase velocity of seismic waves (Shapiro, S.A., Schwarz, R., Gold, N.), **127,** 783

Fractures

Effects of stress on the two-dimensional permeability tensor of natural fracture networks (Zhang, X., Sanderson, D.J.), **125,** 912
Effects of fractures on seismic-wave velocity and attenuation (Boadu, F.K., Long, L.T.), **127,** 86

France

Present-day deformation of the Dauphiné Alpine and Subalpine massifs (SE France) (Martinod, J., Jouanne, F., Taverna, J., Ménard, G., Gamond, J.-F., Darmendrail, X., Notter, J.-C., Basile, C.), **127,** 189

Fraunhofer approximation

Resolution limits for crosswell migration and traveltime tomography (Schuster, G.T.), **127,** 427

Fréchet derivatives

Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **124,** 456
Approximate sensitivities for the electromagnetic inverse problem (Farquharson, C.G., Oldenburg, D.W.), **126,** 235
Mode-sum to ray-sum transformation in a spherical and an aspherical earth (Zhao, L., Dahlen, F.A.), **126,** 389
Inversion of magnetotelluric soundings using a new integral form of the induction equation (Esparza, F.J., Gómez-Treviño, E.), **127,** 452

Galicia Bank

The S reflector west of Galicia: the seismic signature of a detachment fault (Reston, T.J.), **127,** 230

Geochronology

Palaeomagnetism and chronology of the central Taupo Volcanic Zone, New Zealand (Tanaka, H., Turner, G.M., Houghton, B.F., Tachibana, T., Kono, M., McWilliams, M.O.), **124,** 919

Geodynamics

Path of the mean rotational pole from 1899 to 1994 (McCarthy, D.D., Luzum, B.J.), **125,** 623
Variational principles for the momentum equation of mantle convection with Newtonian and power-law rheologies (Matyska, C.), **126,** 281

Geodynamo

Experiments on Joule heating and the dissipation of energy in the Earth's core (Brito, D., Cardin, P., Nataf, H.-C., Olson, P.), **127,** 339

Geoid

Analytic solutions for Stokes' flow with lateral variations in viscosity (Zhong, S.), **124,** 18
Understanding the effects of mantle compressibility on geoid kernels (Panasyuk, S.V., Hager, B.H., Forte, A.M.), **124,** 121
Combination of ERS-1 and TOPEX altimetry for precise geoid and gravity recovery in the Mediterranean Sea (Arabelos, D., Tziavos, I.N.), **125,** 285
Free-surface formulation of mantle convection—I. Basic theory and application to plumes (Zhong, S., Gurnis, M., Moresi, L.), **127,** 708
Free-surface formulation of mantle convection—II. Implication for subduction-zone observables (Gurnis, M., Eloy, C., Zhong, S.), **127,** 719

Geoid anomalies

High-resolution mean sea surface computed with altimeter data of ERS-1 (geodetic mission) and Topex–Poseidon (Cazenave, A., Schaeffer, P., Berge, M., Brossier, C., Dominh, K., Gennero, M.C.), **125,** 696
Simple considerations on forces driving plate motion and on the plate-tectonic contribution to the long-wavelength geoid (Karpychev, M., Fleitout, L.), **127,** 268
Two-dimensional geoid modelling: some remarks on Chapman's algorithm (Ayala, C., Fernàndez, M., Torné, M., Pous, J.), **127,** 542

Geoid determination

Formulation of the boundary-value problem for geoid determination

with a higher-degree reference field (Martinec, Z, Vaníček, P.), **126,** 219

Geomagnetic field

Is the non-dipole magnetic field random? (Walker, A.D., Backus, G.E.), **124,** 315
Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields (Jackson, A., Hide, R.), **125,** 925
A simple approach to the transformation of spherical harmonic models under coordinate system rotation (De Santis, A., Torta, J.M., Falcone, C.), **126,** 263

Geomagnetic field models

International geomagnetic reference field, 1995 revision (IAGA), **125,** 318

Geomagnetic reference fields

International geomagnetic reference field, 1995 revision (IAGA), **125,** 318

Geomagnetic reversal

Mono Lake Excursion in the Lahontan Basin, Nevada (Liddicoat, J.C.), **125,** 630
Record of a previously unidentified short geomagnetic event from an upper Miocene sedimentary sequence, and preferred path of the transitional VGPs (Florindo, F.), **126,** F1
Periodicity of magnetic intensities in magnetic anomaly profiles: the Cenozoic of the South Atlantic (D'Argenio, B., Iorio, M., Tarling, D.H.), **127,** 141

Geomagnetic variation

Annual variation of the geomagnetic field (Malin, S.R.C, Winch, D.E.), **124,** 170
A model for the *am* (*Km*) planetary geomagnetic activity index and application to prediction (Francq, C., Menvielle, M.), **125,** 729

Geomagnetism

Frequency-dependent susceptibility measurements of environmental materials (Dearing, J.A., Dann, R.J.L., Hay, K., Lees, J.A., Loveland, P.J., Maher, B.A., O'Grady, K.), **124,** 228
Is the non-dipole magnetic field random? (Walker, A.D., Backus, G.E.), **124,** 315
Optimized kinematic dynamos (Love, J.J., Gubbins, D.), **124,** 787
Potential magnetic field and potential vorticity in magnetohydrodynamics (Hide, R.), **125,** F1
Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599
Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields (Jackson, A., Hide, R.), **125,** 925
On the minimization of correlated residuals (Füllekrug, M.), **126,** 63
Determination of a steady velocity field in a rotating frame of reference at the surface of the Earth's core (Davis, R.G., Whaler, K.A.), **126,** 92
Aliasing and noise in core-surface flow inversions (Celaya, M., Wahr, J.), **126,** 447
Systematic analysis of magnetic observatory data—I. A proposed method (Malin, S.R.C., Tunçer, M.K., Yazıcı-Çakın, O.), **126,** 635
Periodicity of magnetic intensities in magnetic anomaly profiles: the Cenozoic of the South Atlantic (D'Argenio, B., Iorio, M., Tarling, D.H.), **127,** 141

Geostatistics

Seismic moment assessment of earthquakes in stable continental regions—I. Instrumental seismicity (Johnston, A.C.), **124,** 381
Statistics and geometry of the eigenspectra of three-dimensional second-rank symmetric random tensors (Xu, P., Grafarend, E.), **127,** 744

Geothermics

Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors (Cespuglio, G., Campus, P., Šílený, J.), **126,** 620

Germany

Seismic anisotropy within the uppermost mantle of southern Germany (Enderle, U., Mechie, J., Sobolev, S., Fuchs, K.), **125,** 747

Ghana

Marine magnetic data processing in equatorial regions off Ghana (Buchanan, S.K., Scrutton, R.A., Edwards, R.A., Whitmarsh, R.B.), **125,** 123

Glacial rebound

Viscoelastic relaxation of a Burgers half-space: implications for the interpretation of the Fennoscandian uplift (Rümpker, G., Wolf, D.), **124,** 541
Glacial rebound of the British Isles—III. Constraints on mantle viscosity (Lambeck, K., Johnston, P., Smither, C., Nakada, M.), **125,** 340
Induced stresses and fault potential in eastern Canada due to a disc load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **125,** 415
Postglacial sea-level change on a rotating Earth: first results from a gravitationally self-consistent sea-level equation (Milne, G.A., Mitrovica, J.X.), **126,** F13
Recent postglacial rebound, gravity change and mantle flow in Fennoscandia (Ekman, M., Mäkinen, J.), **126,** 229
Some analytical solutions for the viscoelastic gravitational relaxation of a two-layer non-self-gravitating incompressible spherical earth (Wu, P., Ni, Z.), **126,** 413
Deglacial land emergence and lateral upper-mantle heterogeneity in the Svalbard Archipelago—II. Extended results for high-resolution load models (Kaufmann, G., Wolf, D.), **127,** 125
Note on estimates of the glacial–isostatic decay spectrum for Fennoscandia (Wolf, D.), **127,** 801

Global seismology

Seismic moment assessment of earthquakes in stable continental regions—I. Instrumental seismicity (Johnston, A.C.), **124,** 381
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515

Gondwana

Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175
Palaeomagnetic-pole errors and a 'small-circle' assessment of the Gondwanan polar-wander path (Tarling, D.H., Abdeldayem, A.L.), **125,** 115
Tectonic implications of *S*-wave anisotropy beneath SE Brazil (James, D.E., Assumpção, M.), **126,** 1

GPS

Repeated GPS surveys across the Ionian Sea: evidence of crustal

deformations (Anzidei, M., Baldi, P., Casula, G., Crespi, M., Riguzzi, F.), **127,** 257

Grain-growth CRM

Theory of CRM acquired by grain growth, and its implications for TRM discrimination and palaeointensity determination in igneous rocks (McClelland, E.), **126,** 271

Gravitational potential

Formulation of the boundary-value problem for geoid determination with a higher-degree reference field (Martinec, Z, Vaníček, P.), **126,** 219

Gravity

Test of theoretical solid earth and ocean gravity tides (Goodkind, J.M.), **125,** 106
RATGP95: a harmonic development of the tide-generating potential using an analytical method (Roosbeek, F.), **126,** 197
Recent postglacial rebound, gravity change and mantle flow in Fennoscandia (Ekman, M., Mäkinen, J.), **126,** 229
Newly compiled gravity and topographic data banks of Greece (Lagios, E., Chailas, S., Hipkin, R.G.), **126,** 287

Gravity anomalies

Depth estimation from the scaling power spectrum of potential fields? (Maus, S., Dimri, V.), **124,** 113
Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175
Combination of ERS-1 and TOPEX altimetry for precise geoid and gravity recovery in the Mediterranean Sea (Arabelos, D., Tziavos, I.N.), **125,** 285
An optimal procedure for deriving marine gravity from multi-satellite altimetry (Hwang, C., Parsons, B.), **125,** 705
Newly compiled gravity and topographic data banks of Greece (Lagios, E., Chailas, S., Hipkin, R.G.), **126,** 287
Yucatán karst features and the size of Chicxulub crater (Connors, M., Hildebrand, A.R., Pilkington, M., Ortiz-Aleman, C., Chavez, R.E., Urrutia-Fucugauchi, J., Graniel-Castro, E., Camara-Zi, A., Vasquez, J., Halpenny, J.F.), **127,** F11
Mechanisms of isostatic compensation of the Zimbabwe and Kaapvaal cratons, the Limpopo Belt and the Mozambique basin (Gwavava, O., Swain, C.J., Podmore, F.), **127,** 635

Greece

Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area (Kalogeras, I.S., Burton, P.W.), **125,** 679
Some features of aftershock patterns in Greece (Drakatos, G., Latoussakis, J.), **126,** 123
Newly compiled gravity and topographic data banks of Greece (Lagios, E., Chailas, S., Hipkin, R.G.), **126,** 287
A microseismic study in the western part of the Gulf of Corinth (Greece): implications for large-scale normal faulting mechanisms (Rigo, A., Lyon-Caen, H., Armijo, R., Deschamps, A., Hatzfeld, D., Makropoulos, K., Papadimitriou, P., Kassaras, I.), **126,** 663

Green's functions

Understanding the effects of mantle compressibility on geoid kernels (Panasyuk, S.V., Hager, B.H., Forte, A.M.), **124,** 121
Analytical solutions for 3-D flexural deformation of semi-infinite elastic plates (Wessel, P.), **124,** 907
Coseismic deformation from earthquake faulting on a layered spherical earth (Pollitz, F.F.), **125,** 1
Empirical analysis of digital seismograms from a cluster of explosions at regional distances for characterizing multiple explosions (Kim, S.G., Wu, Z.), **125,** 491
Two-dimensional multivalued traveltime and amplitude maps by uniform sampling of a ray field (Lambaré, G., Lucio, P.S., Hanyga, A.), **125,** 584
Source investigation of a small event using empirical Green's functions and simulated annealing (Courboulex, F., Virieux, J., Deschamps, A., Gibert, D., Zollo, A.), **125,** 768
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
Mode-sum to ray-sum transformation in a spherical and an aspherical earth (Zhao, L., Dahlen, F.A.), **126,** 389
Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735
The radiation modes of a vertically varying half-space: a new representation of the complete Green's function in terms of modes (Maupin, V.), **126,** 762
Frequency-dependent relocation of the 1992 Nicaragua slow earthquake: an empirical Green's function approach (Ihmlé, P.F.), **127,** 75
One-way representations of seismic data (Wapenaar, C.P.A.), **127,** 178

Guided waves

Free-mode surface-wave computations (Buchen, P.W., Ben-Hador, R.), **124,** 869
Waveform analysis of Scholte modes in ocean sediment layers (Nolet, G.), **125,** 385

Gulf of Corinth

Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean (Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D.), **126,** 11
A microseismic study in the western part of the Gulf of Corinth (Greece): implications for large-scale normal faulting mechanisms (Rigo, A., Lyon-Caen, H., Armijo, R., Deschamps, A., Hatzfeld, D., Makropoulos, K., Papadimitriou, P., Kassaras, I.), **126,** 663

Haematite

Quantitative extraction and analysis of carriers of magnetization in sediments (Hounslow, M.W., Maher, B.A.), **124,** 57
High-unblocking-temperature haematite magnetizations of Late Palaeozoic red beds from the Okcheon zone, southern part of the Korean Peninsula (Lee, Y.S., Nishimura, S., Min, K.D.), **125,** 266

Half-graben

Flexure associated with planar faulting (Bott, M.H.P.), **126,** F21

Heat flow

Non-linear temperature and pressure waves in fluid-saturated porous rocks (Natale, G., Salusti, E.), **124,** 649
Thermal and hydraulic aspects of the KTB drill site (Kohl, T., Rybach, L.), **124,** 756
Palaeoclimate and structure: the most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland (Kukkonen, I.T., Šafanda, J.), **126,** 101
Near-surface thermal/chemical boundary layer convection at infinite Prandtl number: two-dimensional numerical experiments (Lenardic, A., Kaula, W.M.), **126,** 689
Experiments on Joule heating and the dissipation of energy in the Earth's core (Brito, D., Cardin, P., Nataf, H.-C., Olson, P.), **127,** 339

Hellenic Trench

S–P-wave traveltime residuals from earthquakes and lateral inhomogeneity in the upper mantle beneath the Aegean and the Hellenic Trench near Crete (Taymaz, T.), **127,** 545

Heterogeneity

Horizontal layered structure with heterogeneity beneath continents and island arcs from particle orbits of long-period *P* waves (Nishimura, T.), **127,** 773

Hidaka Mountains

2.5-D modelling of elastic waves using the pseudospectral method (Furumura, T., Takenaka, H.), **124,** 820

Hotspots

Hotspot–ridge interaction in the Indian Ocean: constraints from Geosat/ERM altimetry (Grevemeyer, I.), **126,** 796
Rayleigh-wave dispersion along the Hawaiian Swell: a test of lithospheric thinning by thermal rejuvenation at a hotspot (Woods, M.T, Okal, E.A.), **125,** 325
Tectonic implications of *S*-wave anisotropy beneath SE Brazil (James, D.E., Assumpção, M.), **126,** 1

Hybrid method

A 2-D velocity model of the Vrancea region in Romania: prediction of teleseismic waveforms (Perrot, J., Deschamps, A., Farra, V., Virieux, J.), **125,** 537

Hypocentre

Applying the relative hypocentre location approach: where was the 1980 November 23 Irpinia earthquake? (Giardini, D., Basili, A., Boschi, E.), **127,** 605
Effect of limited data sets in evaluating the scaling properties of spatially distributed data: an example from mining-induced seismic activity (Eneva, M.), **124,** 773
Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17

Iapetus suture

Causes of high crustal conductivity beneath the Iapetus suture zone in Great Britain (Banks, R.J., Livelybrooks, D., Jones, P., Longstaff, R.), **124,** 433

Iberian Peninsula

Imaging of shear-wave velocity structure beneath Iberia (Badal, J., Corchete, V., Payo, G., Pujades, L., Canas, J.A.), **124,** 591

Iceland

Reinterpretation of the RRISP-77 Iceland shear-wave profiles (Menke, W., Brandsdóttir, B., Einarsson, P., Bjarnason, I.Th.), **126,** 166

Igneous rock

Palaeomagnetism and chronology of the central Taupo Volcanic Zone, New Zealand (Tanaka, H., Turner, G.M., Houghton, B.F., Tachibana, T., Kono, M., McWilliams, M.O.), **124,** 919
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—I. Melt extraction by compaction and deformation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 616
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—II. Rayleigh–Taylor instability and sedimentation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 627

IGRF

International geomagnetic reference field, 1995 revision (IAGA), **125,** 318

Impact crater

Yucatán karst features and the size of Chicxulub crater (Connors, M., Hildebrand, A.R., Pilkington, M., Ortiz-Aleman, C., Chavez, R.E., Urrutia-Fucugauchi, J., Graniel-Castro, E., Camara-Zi, A., Vasquez, J., Halpenny, J.F.), **127,** F11

India

On the anomalous features of the geomagnetic quiet-day field variations at Nagpur, India (Chandrasekhar, E., Alex, S.), **127,** 703

Induced polarization

Induced-polarization modelling using complex electrical conductivities (Weller, A., Seichter, M., Kampke, A.), **127,** 387

Inhomogeneous media

Estimation of finite-frequency waveforms through wavelength-dependent averaging of velocity (Lomax, A., Snieder, R.), **126,** 369
Multiple scattering of elastic waves from a continuous and heterogeneous region (Li, X., Hudson, J.A.), **126,** 845
Wave propagation in a multiple-scattering upper mantle—observations and modelling (Tittgemeyer, M., Wenzel, F., Fuchs, K., Ryberg, T.), **127,** 492

Inner core

A model for sedimentary compaction of a viscous medium and its application to inner-core growth (Sumita, I., Yoshida, S., Kumazawa, M., Hamano, Y.), **124,** 502

Instrumentation

Microwave archaeointensities from Peruvian ceramics (Shaw, J., Walton, D., Yang, S., Rolph, T.C., Share, J.A.), **124,** 241

Integral transforms

B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—I. Solution by the Wiener–Hopf technique, with limiting forms (Dawson, T.W.), **124,** 556

Inverse problem

Waveform inversions and the significance of surface-wave mode coupling (Marquering, H., Snieder, R., Nolet, G.), **124,** 258
Smooth velocity models in reflection tomography for imaging complex geological structures (Lailly, P., Sinoquet, D.), **124,** 349
Optimized kinematic dynamos (Love, J.J., Gubbins, D.), **124,** 787
Simultaneous inversion of reflection and refraction seismic data and application to field data from the northern Rio Grande rift (Wang, B., Braile, L.W.), **125,** 443
One-way representations of seismic data (Wapenaar, C.P.A.), **127,** 178
Shear-wave velocity structure beneath Europe, the northeastern Atlantic and western Asia from waveform inversions including surface-wave mode coupling (Marquering, H., Snieder, R.), **127,** 283

Inversion

Ambiguity in the solution to the velocity inversion problem and a

solution by joint inversion of seismic refraction and wide-angle reflection times (Sain, K., Kaila, K.L.), **124,** 215
Waveform inversion of marine reflection seismograms for *P* impedance and Poisson's ratio (Igel, H., Djikpéssé, H., Tarantola, A.), **124,** 363
Nullspace shuttles (Deal, M., Nolet, G.), **124,** 372
Imaging of shear-wave velocity structure beneath Iberia (Badal, J., Corchete, V., Payo, G., Pujades, L., Canas, J.A.), **124,** 591
The information content of the elastic reflection matrix (Ursin, B., Tjåland, E.), **125,** 214
Application of very fast simulated annealing to the determination of the crustal structure beneath Tibet (Zhao, L.-S., Sen, M.K., Stoffa, P., Frohlich, C.), **125,** 355
Source investigation of a small event using empirical Green's functions and simulated annealing (Courboulex, F., Virieux, J., Deschamps, A., Gibert, D., Zollo, A.), **125,** 768
An improved method for the determination of the tectonic stress field from focal mechanism data (Yin, Z.-M.), **125,** 841
Estimates of stress directions by inversion of earthquake fault-plane solutions in Sicily (Caccamo, D., Neri, G., Sarao, A., Wyss, M.), **125,** 857
Velocity structure of the upper-mantle transition zones beneath central Eurasia from seismic inversion using genetic algorithms (Neves, F.A., Singh, S.C., Priestly, K.F.), **125,** 869
Estimation of high-frequency wave radiation areas on the fault plane by the envelope inversion of acceleration seismograms (Kakehi, Y., Irikura, K.), **125,** 892
On the minimization of correlated residuals (Füllekrug, M.), **126,** 63
A two-dimensional magnetotelluric inversion assuming Gaussian static shift (Ogawa, Y., Uchida, T.), **126,** 69
Anisotropy and *P*-wave tomography: a new approach for inverting teleseismic data from a dense array of stations (Grésillaud, A., Cara, M.), **126,** 77
Irregular grids in seismic tomography and minimum-time ray tracing (Vesnaver, A.L.), **126,** 147
Approximate sensitivities for the electromagnetic inverse problem (Farquharson, C.G., Oldenburg, D.W.), **126,** 235
A computationally feasible approximate resolution matrix for seismic inverse problems (Minkoff, S.E.), **126,** 345
Aliasing and noise in core-surface flow inversions (Celaya, M., Wahr, J.), **126,** 447
Determination of crustal structure in central Australia by inversion of traveltime residuals (McQueen, H.W.S., Lambeck, K.), **126,** 645
Inversion of magnetotelluric soundings using a new integral form of the induction equation (Esparza, F.J., Gómez-Treviño, E.), **127,** 452
Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515
S–P-wave traveltime residuals from earthquakes and lateral inhomogeneity in the upper mantle beneath the Aegean and the Hellenic Trench near Crete (Taymaz, T.), **127,** 545
Approximate depth averages of electrical conductivity from surface magnetotelluric data (Gómez-Treviño, E.), **127,** 762
Calculating the two-dimensional magnetotelluric Jacobian in finite elements using reciprocity (Pastana de Lugão, P., Wannamaker, P.E.), **127,** 806

Ionian Sea

Repeated GPS surveys across the Ionian Sea: evidence of crustal deformations (Anzidei, M., Baldi, P., Casula, G., Crespi, M., Riguzzi, F.), **127,** 257

Ionosphere

Annual variation of the geomagnetic field (Malin, S.R.C, Winch, D.E.), **124,** 170

Iranian plateau

Numerical modelling of the deformation of the Iranian plateau (Sobouti, F., Arkani-Hamed, J.), **126,** 805

Island arcs

Horizontal layered structure with heterogeneity beneath continents and island arcs from particle orbits of long-period *P* waves (Nishimura, T.), **127,** 773

Isostasy

Two-dimensional geoid modelling: some remarks on Chapman's algorithm (Ayala, C., Fernàndez, M., Torné, M., Pous, J.), **127,** 542
Mechanisms of isostatic compensation of the Zimbabwe and Kaapvaal cratons, the Limpopo Belt and the Mozambique basin (Gwavava, O., Swain, C.J., Podmore, F.), **127,** 635
Note on estimates of the glacial–isostatic decay spectrum for Fennoscandia (Wolf, D.), **127,** 801

Isotropy

Towards a quantitative description of field-impressed anisotropy of susceptibility (Stephenson, A., Potter, D.K.), **126,** 505

Italy

Estimates of stress directions by inversion of earthquake fault-plane solutions in Sicily (Caccamo, D., Neri, G., Sarao, A., Wyss, M.), **125,** 857

Japan

Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—I (Lallemant, S.J., Le Pichon, X., Thoué, F., Henry, P., Saito, S.), **126,** 871
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—II (Pollitz, F.F., Le Pichon, X., Lallemant, S.J.), **126,** 882
Quantitative mapping of a precursory seismic quiescence to the Izu–Oshima 1990 (*M*6.5) earthquake, Japan (Wyss, M., Shimazaki, K., Urabe, T.), **127,** 735

Karst geomorphology

Yucatán karst features and the size of Chicxulub crater (Connors, M., Hildebrand, A.R., Pilkington, M., Ortiz-Aleman, C., Chavez, R.E., Urrutia-Fucugauchi, J., Graniel-Castro, E., Camara-Zi, A., Vasquez, J., Halpenny, J.F.), **127,** F11

Kenya Rift

On the upper mantle beneath the Kenya Rift (Masotti, R., Maguire, P.K.H., Mechie, J.), **126,** 579

KT boundary

Yucatán karst features and the size of Chicxulub crater (Connors, M., Hildebrand, A.R., Pilkington, M., Ortiz-Aleman, C., Chavez, R.E., Urrutia-Fucugauchi, J., Graniel-Castro, E., Camara-Zi, A., Vasquez, J., Halpenny, J.F.), **127,** F11

Laguerre polynomials

Numerical solution of boundary-layer problems (Buffett, B.A.), **126,** 291

Lahontan Basin

Mono Lake Excursion in the Lahontan Basin, Nevada (Liddicoat, J.C.), **125,** 630

Lateral heterogeneity

Analytical computation of reflection and transmission coupling coefficients for Love waves (Romanelli, F., Bing, Z., Vaccari, F., Panza, G.F.), **125,** 132
Effects of a heterogeneous mantle on the velocity and magnetic fields at the top of the core (Buffett, B.A.), **125,** 303
Spectral diffusion of elastic wave energy (Odom, R.I., Mercer, J.A.), **127,** 111
Deglacial land emergence and lateral upper-mantle heterogeneity in the Svalbard Archipelago—II. Extended results for high-resolution load models (Kaufmann, G., Wolf, D.), **127,** 125

Layered media

Can horizontal *P* waves be trapped and resonate in a shallow sedimentary basin? (Sánchez-Sesma, F.J., Luzón, F.), **124,** 209
Propagation of tube waves generated by an external source in layered permeable rocks (Ionov, A.M., Maximov, G.A.), **124,** 888
Coseismic deformation from earthquake faulting on a layered spherical earth (Pollitz, F.F.), **125,** 1
Wave diffraction in multilayered media with the Indirect Boundary Element Method: application to 3-D diffraction of long-period surface waves by 2-D lithospheric structures (Pedersen, H.A., Maupin, V., Campillo, M.), **125,** 545
Magnetotelluric response of a randomly layered earth (Vallianatos, F.), **125,** 577
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
The radiation modes of a vertically varying half-space: a new representation of the complete Green's function in terms of modes (Maupin, V.), **126,** 762
Wave propagation in a multiple-scattering upper mantle—observations and modelling (Tittgemeyer, M., Wenzel, F., Fuchs, K., Ryberg, T.), **127,** 492

Layered structure

Horizontal layered structure with heterogeneity beneath continents and island arcs from particle orbits of long-period *P* waves (Nishimura, T.), **127,** 773

Lithosphere

Imaging of shear-wave velocity structure beneath Iberia (Badal, J., Corchete, V., Payo, G., Pujades, L., Canas, J.A.), **124,** 591
A lithospheric cross-section through the Swiss Alps—I. Thermokinematic modelling of the Neoalpine orogeny (Okaya, N., Freeman, R., Kissling, E., Mueller, St.), **125,** 504
Wave diffraction in multilayered media with the Indirect Boundary Element Method: application to 3-D diffraction of long-period surface waves by 2-D lithospheric structures (Pedersen, H.A., Maupin, V., Campillo, M.), **125,** 545
Anisotropy and *P*-wave tomography: a new approach for inverting teleseismic data from a dense array of stations (Grésillaud, A., Cara, M.), **126,** 77
Seismic anisotropy in the north-eastern US as a source of significant teleseismic *P* traveltime anomalies (Levin, V., Menke, W., Lerner-Lam, A.), **126,** 593
A lithospheric cross-section through the Swiss Alps—II. Constraints on the mechanical structure of a continent–continent collision zone (Okaya, N., Cloetingh, S., Mueller, St.), **127,** 399
Mechanisms of isostatic compensation of the Zimbabwe and Kaapvaal cratons, the Limpopo Belt and the Mozambique basin (Gwavava, O., Swain, C.J., Podmore, F.), **127,** 635

Lithospheric deformation

Thermomechanical structure of European continental lithosphere: constraints from rheological profiles and EET estimates (Cloetingh, S., Burov, E.B.), **124,** 695
Inelastic models of lithospheric stress—I. Theory and application to outer-rise plate deformation (Mueller, S., Choy, G.L., Spence, W.), **125,** 39
Inelastic models of lithospheric stress—II. Implications for outer-rise seismicity and dynamics (Mueller, S., Spence, W., Choy, G.L.), **125,** 54
Tectonic implications of *S*-wave anisotropy beneath SE Brazil (James, D.E., Assumpção, M.), **126,** 1
Dynamic models of subduction: geophysical and geological evidence in the Tyrrhenian Sea (Giunchi, C., Sabadini, R., Boschi, E., Gasperini, P.), **126,** 555

Lithospheric viscosity

Viscosity structure of the oceanic lithosphere inferred from the differential late Quaternary sea-level variations for the southern Cook Islands (Nakada, M.), **126,** 829

Loess

A detailed record of normal–reversed polarity transition obtained from a thick loess sequence at Jiuzhoutai, near Lanzhou, China (McIntosh, G., Rolph, T.C., Shaw, J., Dagley, P.), **127,** 651

Lofer cycles

Ancient platform carbonates with well-developed Lofer cyclicity: new candidates for magnetostratigraphy and geodynamically oriented palaeomagnetism (Márton, E., Haas, J.), **126,** 253

Long period

Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515

Love numbers

The subseismic approximation in core dynamics—II. Love numbers and surface gravity (Crossley, D.J., Rochester, M.G.), **125,** 830

Love waves

Free-mode surface-wave computations (Buchen, P.W., Ben-Hador, R.), **124,** 869
Analytical computation of reflection and transmission coupling coefficients for Love waves (Romanelli, F., Bing, Z., Vaccari, F., Panza, G.F.), **125,** 132

Low-velocity layer

Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175

Low-velocity zone

Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area (Kalogeras, I.S., Burton, P.W.), **125,** 679

Magma

Hydraulic crack propagation in a porous medium (Fowler, A.C., Scott, D.R.), **127,** 595

Magma flow

Modelling of melt segregation processes by high-temperature

centrifuging of partially molten granites—I. Melt extraction by compaction and deformation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 616
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—II. Rayleigh–Taylor instability and sedimentation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 627

Magnetic anisotropy

Three-dimensional Rayleigh hysteresis of oriented core samples from the German Continental Deep Drilling Program: susceptibility tensor, Rayleigh tensor, three-dimensional Rayleigh law (Markert, H., Lehmann, A.), **127,** 201

Magnetic anomalies

Depth estimation from the scaling power spectrum of potential fields? (Maus, S., Dimri, V.), **124,** 113
Marine magnetic data processing in equatorial regions off Ghana (Buchanan, S.K., Scrutton, R.A., Edwards, R.A., Whitmarsh, R.B.), **125,** 123
Periodicity of magnetic intensities in magnetic anomaly profiles: the Cenozoic of the South Atlantic (D'Argenio, B., Iorio, M., Tarling, D.H.), **127,** 141

Magnetic domain

Magnetic domain observations on magnetite and titanomaghemite grains (0.5–10μm) (Geiss, C.E., Heider, F., Soffel, H.C.), **124,** 75
Towards a quantitative description of field-impressed anisotropy of susceptibility (Stephenson, A., Potter, D.K.), **126,** 505

Magnetic mineralogy

North America during the Lower Cretaceous: new palaeomagnetic constraints from intrusions in New England (McEnroe, S.A.), **126,** 477

Magnetic polarity

Mono Lake Excursion in the Lahontan Basin, Nevada (Liddicoat, J.C.), **125,** 630
A detailed record of normal–reversed polarity transition obtained from a thick loess sequence at Jiuzhoutai, near Lanzhou, China (McIntosh, G., Rolph, T.C., Shaw, J., Dagley, P.), **127,** 651

Magnetic susceptibility

Quantitative extraction and analysis of carriers of magnetization in sediments (Hounslow, M.W., Maher, B.A.), **124,** 57
Frequency-dependent susceptibility measurements of environmental materials (Dearing, J.A., Dann, R.J.L., Hay, K., Lees, J.A., Loveland, P.J., Maher, B.A., O'Grady, K.), **124,** 228
Towards a quantitative description of field-impressed anisotropy of susceptibility (Stephenson, A., Potter, D.K.), **126,** 505
Magnetic susceptibility of soil: an evaluation of conflicting theories using a national data set (Dearing, J.A., Hay, K.L., Baban, S.M.J., Huddleston, A.S., Wellington, E.M.H., Loveland, P.J.), **127,** 728

Magnetite

Magnetic domain observations on magnetite and titanomaghemite grains (0.5–10μm) (Geiss, C.E., Heider, F., Soffel, H.C.), **124,** 75
Frequency-dependent susceptibility measurements of environmental materials (Dearing, J.A., Dann, R.J.L., Hay, K., Lees, J.A., Loveland, P.J., Maher, B.A., O'Grady, K.), **124,** 228
Palaeomagnetism of the Jurassic Asphaltkalk deposits, Holzen, northern Germany (Katz, B., Elmore, R.D., Engel, M.H., Leythaeuser, D.), **127,** 305
Quantitative extraction and analysis of carriers of magnetization in sediments (Hounslow, M.W., Maher, B.A.), **124,** 57
Three-dimensional micromagnetic calculations for magnetite using FFT (Fabian, K., Kirchner, A., Williams, W., Heider, F., Leibl, T., Hubert, A.), **124,** 89
Towards a quantitative description of field-impressed anisotropy of susceptibility (Stephenson, A., Potter, D.K.), **126,** 505

Magnetization

A phenomenological model of orientational magnetic anisotropy of sediments (Kosterov, A.A., Shashkanov, V.A.), **125,** 149
High-unblocking-temperature haematite magnetizations of Late Palaeozoic red beds from the Okcheon zone, southern part of the Korean Peninsula (Lee, Y.S., Nishimura, S., Min, K.D.), **125,** 266
Magnetic properties of hydrothermally synthesized greigite (Fe_3S_4)—I. Rock magnetic parameters at room temperature (Dekkers, M.J., Schoonen, M.A.A.), **126,** 360
Palaeomagnetism of the Jurassic Asphaltkalk deposits, Holzen, northern Germany (Katz, B., Elmore, R.D., Engel, M.H., Leythaeuser, D.), **127,** 305

Magnetohydrodynamics

Potential magnetic field and potential vorticity in magnetohydrodynamics (Hide, R.), **125,** F1

Magnetostratigraphy

Polarity inversion in the Rajmahal lavas, north-east India: trap emplacement near commencement of the Cretaceous Normal Superchron (Das, A.K., Piper, J.D.A., Bandyopadhyay, G., Mallik, S.B.), **124,** 427
Palaeomagnetism and magnetostratigraphy of Triassic strata in the Sangre de Cristo Mountains and Tucumcari Basin, New Mexico, USA (Molina-Garza, R.S., Geissman, J.W., Lucas, S.G., Van der Voo, R.), **124,** 935
Magnetostratigraphy of the Moyero river section (north-western Siberia): constraints on geomagnetic reversal frequency during the early Palaeozoic (Gallet, Y., Pavlov, V.), **125,** 95
Permo-Triassic magnetostratigraphy in China: the type section near Taiyuan, Shanxi Province, North China (Embleton, B.J.J., McElhinny, M.W., Ma, X., Zhang, Z., Li, Z.X.), **126,** 382
Periodicity of magnetic intensities in magnetic anomaly profiles: the Cenozoic of the South Atlantic (D'Argenio, B., Iorio, M., Tarling, D.H.), **127,** 141
Magnetobiostratigraphy of the Spathian to Anisian (Lower to Middle Triassic) Kçira section, Albania (Muttoni, G., Kent, D.V., Meço, S., Nicora, A., Gaetani, M., Balini, M., Germani, D., Rettori, R.), **127,** 503

Magnetotellurics

Magnetotelluric soundings across the South Island of New Zealand: electrical structure associated with the orogen of the Southern Alps (Ingham, M.), **124,** 134
Causes of high crustal conductivity beneath the Iapetus suture zone in Great Britain (Banks, R.J., Livelybrooks, D., Jones, P., Longstaff, R.), **124,** 433
B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—I. Solution by the Wiener–Hopf technique, with limiting forms (Dawson, T.W.), **124,** 556
B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—II. Solution by the mode-matching method, the fields above the conductors, and example results (Dawson, T.W.), **124,** 577
Magnetotelluric response of a randomly layered earth (Vallianatos, F.), **125,** 577
A two-dimensional magnetotelluric inversion assuming Gaussian static shift (Ogawa, Y., Uchida, T.), **126,** 69
Approximate sensitivities for the electromagnetic inverse problem (Farquharson, C.G., Oldenburg, D.W.), **126,** 235
Approximate depth averages of electrical conductivity from surface magnetotelluric data (Gómez-Treviño, E.), **127,** 762

Calculating the two-dimensional magnetotelluric Jacobian in finite elements using reciprocity (Pastana de Lugão, P., Wannamaker, P.E.), **127,** 806
Inversion of magnetotelluric soundings using a new integral form of the induction equation (Esparza, F.J., Gómez-Treviño, E.), **127,** 452

Mantle

The influence of a density stratification and of an incompressibility modulus on the spectrum of core modes (Briers, R., Dehant, V., Leroy, O.), **127,** 588

Mantle convection

Understanding the effects of mantle compressibility on geoid kernels (Panasyuk, S.V., Hager, B.H., Forte, A.M.), **124,** 121
Internal loading of an inhomogeneous compressible earth with phase boundaries (Defraigne, P., Dehant, V., Wahr, J.M.), **125,** 173
Near-surface thermal/chemical boundary layer convection at infinite Prandtl number: two-dimensional numerical experiments (Lenardic, A., Kaula, W.M.), **126,** 689
Free-surface formulation of mantle convection—I. Basic theory and application to plumes (Zhong, S., Gurnis, M., Moresi, L.), **127,** 708
Free-surface formulation of mantle convection—II. Implication for subduction-zone observables (Gurnis, M., Eloy, C., Zhong, S.), **127,** 719

Mantle discontinuities

Unusual sub-Moho events near Bornholm, Baltic Sea: modelling of BABEL seismic wide-angle data and a tectonic interpretation (Krishna, V.G., Meissner, R., Thomas, S.A.), **125,** 193
410 km discontinuity sharpness and the form of the olivine α–β phase diagram: resolution of apparent seismic contradictions (Helffrich, G.R., Wood, B.J.), **126,** F7

Mantle rheology

Understanding the effects of mantle compressibility on geoid kernels (Panasyuk, S.V., Hager, B.H., Forte, A.M.), **124,** 121
Viscoelastic mantle density heterogeneity and core–mantle topography (Greff-Lefftz, M., Legros, H.), **125,** 567

Mantle viscosity

Understanding the effects of mantle compressibility on geoid kernels (Panasyuk, S.V., Hager, B.H., Forte, A.M.), **124,** 121
Viscoelastic relaxation of a Burgers half-space: implications for the interpretation of the Fennoscandian uplift (Rümpker, G., Wolf, D.), **124,** 541
Glacial rebound of the British Isles—III. Constraints on mantle viscosity (Lambeck, K., Johnston, P., Smither, C., Nakada, M.), **125,** 340
Significance of the fundamental mantle rotational relaxation mode in polar wander simulations (Vermeersen, L.L.A., Sabadini, R.), **127,** F5
Deglacial land emergence and lateral upper-mantle heterogeneity in the Svalbard Archipelago—II. Extended results for high-resolution load models (Kaufmann, G., Wolf, D.), **127,** 125
Simple considerations on forces driving plate motion and on the plate-tectonic contribution to the long-wavelength geoid (Karpychev, M., Fleitout, L.), **127,** 268
Initial-value and modal approaches for transient viscoelastic responses with complex viscosity profiles (Hanyk, L., Yuen, D.A., Matyska, C.), **127,** 348
Note on estimates of the glacial–isostatic decay spectrum for Fennoscandia (Wolf, D.), **127,** 801

Marine sediments

Quantitative extraction and analysis of carriers of magnetization in sediments (Hounslow, M.W., Maher, B.A.), **124,** 57
A systematic analysis of natural magnetic mineral assemblages based on modelling hysteresis loops with coercivity-related hyperbolic basis functions (von Dobeneck, T.), **124,** 675
Record of a previously unidentified short geomagnetic event from an upper Miocene sedimentary sequence, and preferred path of the transitional VGPs (Florindo, F.), **126,** F1

Mashonaland dolerites

A palaeomagnetic investigation of the Mashonaland dolerites, north-east Zimbabwe (Bates, M.P., Jones, D.L.), **126,** 513

Maxwell viscoelasticity

Deglacial land emergence and lateral upper-mantle heterogeneity in the Svalbard Archipelago—II. Extended results for high-resolution load models (Kaufmann, G., Wolf, D.), **127,** 125

Mediterranean Sea

Combination of ERS-1 and TOPEX altimetry for precise geoid and gravity recovery in the Mediterranean Sea (Arabelos, D., Tziavos, I.N.), **125,** 285

Microearthquakes

Effect of limited data sets in evaluating the scaling properties of spatially distributed data: an example from mining-induced seismic activity (Eneva, M.), **124,** 773

Microseismicity

A microseismic study in the western part of the Gulf of Corinth (Greece): implications for large-scale normal faulting mechanisms (Rigo, A., Lyon-Caen, H., Armijo, R., Deschamps, A., Hatzfeld, D., Makropoulos, K., Papadimitriou, P., Kassaras, I.), **126,** 663

Mid-ocean ridge

Seismic velocities of the uppermost igneous crust versus age (Grevemeyer, I., Weigel, W.), **124,** 631
Thin crust on the flanks of the slow-spreading Southwest Indian Ridge (Minshull, T.A., White, R.S.), **125,** 139
Global creepex distribution and its relation to earthquake-source geometry and tectonic origin (Kaverina, A.N., Lander, A.V., Prozorov, A.G.), **125,** 249
Hotspot–ridge interaction in the Indian Ocean: constraints from Geosat/ERM altimetry (Grevemeyer, I.), **126,** 796
Teleseismic imaging of subaxial flow at mid-ocean ridges: traveltime effects of anisotropic mineral texture in the mantle (Blackman, D.K., Kendall, J.-M., Dawson, P.R., Wenk, H.-R., Boyce, D., Phipps Morgan, J.), **127,** 415

Migration

Resolution limits for crosswell migration and traveltime tomography (Schuster, G.T.), **127,** 427

Mineralogy

Magnetic properties of hydrothermally synthesized greigite (Fe_3S_4)—I. Rock magnetic parameters at room temperature (Dekkers, M.J., Schoonen, M.A.A.), **126,** 360

Mode coupling

Analytic solutions for Stokes' flow with lateral variations in viscosity (Zhong, S.), **124,** 18

Waveform inversions and the significance of surface-wave mode coupling (Marquering, H., Snieder, R., Nolet, G.), **124,** 258
Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **124,** 456
B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—II. Solution by the mode-matching method, the fields above the conductors, and example results (Dawson, T.W.), **124,** 577
Spectral diffusion of elastic wave energy (Odom, R.I., Mercer, J.A.), **127,** 111
Shear-wave velocity structure beneath Europe, the northeastern Atlantic and western Asia from waveform inversions including surface-wave mode coupling (Marquering, H., Snieder, R.), **127,** 283

Moho discontinuity

Thermomechanical structure of European continental lithosphere: constraints from rheological profiles and EET estimates (Cloetingh, S., Burov, E.B.), **124,** 695

Moho reflection

Observation of converted Moho reflections in the north-west of the Iberian Peninsula (Téllez, J., Córdoba, D.), **124,** 7

Mono Lake Excursion

Mono Lake Excursion in the Lahontan Basin, Nevada (Liddicoat, J.C.), **125,** 630

Monte-Carlo simulation

Simulated envelopes of non-isotropically scattered body waves as compared to observed ones: another manifestation of fractal heterogeneity (Gusev, A.A., Abubakirov, I.R.), **127,** 49

Nagpur magnetic anomaly

On the anomalous features of the geomagnetic quiet-day field variations at Nagpur, India (Chandrasekhar, E., Alex, S.), **127,** 703

Neogene

Present-day deformation of the Dauphiné Alpine and Subalpine massifs (SE France) (Martinod, J., Jouanne, F., Taverna, J., Ménard, G., Gamond, J.-F., Darmendrail, X., Notter, J.-C., Basile, C.), **127,** 189

New Mexico

Palaeomagnetism and magnetostratigraphy of Triassic strata in the Sangre de Cristo Mountains and Tucumcari Basin, New Mexico, USA (Molina-Garza, R.S., Geissman, J.W., Lucas, S.G., Van der Voo, R.), **124,** 935

New Zealand

Seismic source parameters in New Zealand from broad-band data (Nformi, S., Mao, W., Gubbins, D.), **124,** 289

Nicaragua

Frequency-dependent relocation of the 1992 Nicaragua slow earthquake: an empirical Green's function approach (Ihmlé, P.F.), **127,** 75

Noisy seismograms

Seismic moment tensor resolution by waveform inversion of a few local noisy records—I. Synthetic tests (Šílený, J., Campus, P., Panza, G.F.), **126,** 605

Non-linear models

A model for the *am* (*Km*) planetary geomagnetic activity index and application to prediction (Francq, C., Menvielle, M.), **125,** 729

Normal faulting

A microseismic study in the western part of the Gulf of Corinth (Greece): implications for large-scale normal faulting mechanisms (Rigo, A., Lyon-Caen, H., Armijo, R., Deschamps, A., Hatzfeld, D., Makropoulos, K., Papadimitriou, P., Kassaras, I.), **126,** 663

Normal modes

Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **124,** 456
Viscoelastic relaxation of a Burgers half-space: implications for the interpretation of the Fennoscandian uplift (Rümpker, G., Wolf, D.), **124,** 541
B-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—II. Solution by the mode-matching method, the fields above the conductors, and example results (Dawson, T.W.), **124,** 577
Analytical computation of reflection and transmission coupling coefficients for Love waves (Romanelli, F., Bing, Z., Vaccari, F., Panza, G.F.), **125,** 132
How to reconcile body-wave and normal-mode reference earth models (Montagner, J.-P., Kennett, B.L.N.), **125,** 229
Mode-sum to ray-sum transformation in a spherical and an aspherical earth (Zhao, L., Dahlen, F.A.), **126,** 389
Some analytical solutions for the viscoelastic gravitational relaxation of a two-layer non-self-gravitating incompressible spherical earth (Wu, P., Ni, Z.), **126,** 413
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735
Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data (Hara, T., Kuge, K., Kawakatsu, H.), **127,** 515

North America

North America during the Lower Cretaceous: new palaeomagnetic constraints from intrusions in New England (McEnroe, S.A.), **126,** 477

Numerical modelling

Thermal and hydraulic aspects of the KTB drill site (Kohl, T., Rybach, L.), **124,** 756
Effects of stress on the two-dimensional permeability tensor of natural fracture networks (Zhang, X., Sanderson, D.J.), **125,** 912

Numerical techniques

Linear matrix operations for multicomponent seismic processing (MacBeth, C., Li, X.-Y.), **124,** 189
Optimized kinematic dynamos (Love, J.J., Gubbins, D.), **124,** 787
Two-dimensional multivalued traveltime and amplitude maps by uniform sampling of a ray field (Lambaré, G., Lucio, P.S., Hanyga, A.), **125,** 584
The subseismic approximation in core dynamics—II. Love numbers and surface gravity (Crossley, D.J., Rochester, M.G.), **125,** 830
A simple approach to the transformation of spherical harmonic models

under coordinate system rotation (De Santis, A., Torta, J.M., Falcone, C.), **126,** 263
Numerical solution of boundary-layer problems (Buffett, B.A.), **126,** 291
Improved methods for solving for the magnetic field in E-polarization induction problems with fixed and staggered grids (Weaver, J.T., Pu, X.H., Agarwal, A.K.), **126,** 437
Statistical analysis of palaeomagnetic inclination data (Enkin, R.J., Watson, G.S.), **126,** 495
Causes and reduction of numerical artefacts in pseudo-spectral wavefield extrapolation (Özdenvar, T., McMechan, G.A.), **126,** 819
Ensemble inference in terms of empirical orthogonal functions (Douma, H., Snieder, R., Lomax, A.), **127,** 363
Induced-polarization modelling using complex electrical conductivities (Weller, A., Seichter, M., Kampke, A.), **127,** 387

OBS

Côte d'Ivoire–Ghana margin: seismic imaging of passive rifted crust adjacent to a transform continental margin (Peirce, C., Whitmarsh, R.B., Scrutton, R.A., Pontoise, B., Sage, F., Mascle, J.), **125,** 781

Oceanic crust

Thin crust on the flanks of the slow-spreading Southwest Indian Ridge (Minshull, T.A., White, R.S.), **125,** 139

Oceanic lithosphere

Inelastic models of lithospheric stress—I. Theory and application to outer-rise plate deformation (Mueller, S., Choy, G.L., Spence, W.), **125,** 39
Rayleigh-wave dispersion along the Hawaiian Swell: a test of lithospheric thinning by thermal rejuvenation at a hotspot (Woods, M.T, Okal, E.A.), **125,** 325
High-resolution mean sea surface computed with altimeter data of ERS-1 (geodetic mission) and Topex–Poseidon (Cazenave, A., Schaeffer, P., Berge, M., Brossier, C., Dominh, K., Gennero, M.C.), **125,** 696
Viscosity structure of the oceanic lithosphere inferred from the differential late Quaternary sea-level variations for the southern Cook Islands (Nakada, M.), **126,** 829

Ophiolites

A tensile, flexural model for the initiation of subduction (Kemp, D.V., Stevenson, D.J.), **125,** 73

Ordovician

Magnetostratigraphy of the Moyero river section (north-western Siberia): constraints on geomagnetic reversal frequency during the early Palaeozoic (Gallet, Y., Pavlov, V.), **125,** 95

P waves

Can horizontal *P* waves be trapped and resonate in a shallow sedimentary basin? (Sánchez-Sesma, F.J., Luzón, F.), **124,** 209
Waveform inversion of marine reflection seismograms for *P* impedance and Poisson's ratio (Igel, H., Djikpéssé, H., Tarantola, A.), **124,** 363
Teleseismic body waveforms and receiver structures beneath seismic stations (Zhao, L.-S., Frohlich, C.), **124,** 525
Effect of 2-D topography on the 3-D seismic wavefield using a 2.5-D discrete wavenumber–boundary integral equation method (Takenaka, H., Kennett, B.L.N., Fujiwara, H.), **124,** 741
Elastic wave propagation in a medium containing oriented inclusions with a changing aspect ratio: a physical model study (Ass'ad, J.M., McDonald, J.A., Tatham, R.H., Kusky, T.M.), **125,** 163
The information content of the elastic reflection matrix (Ursin, B., Tjåland, E.), **125,** 214
Anisotropy and *P*-wave tomography: a new approach for inverting teleseismic data from a dense array of stations (Grésillaud, A., Cara, M.), **126,** 77
Sensitivity study of seismic reflection/refraction data (Neves, F.A., Singh, S.C.), **126,** 470

Palaeoclimate

Palaeoclimate and structure: the most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland (Kukkonen, I.T., Šafanda, J.), **126,** 101

Palaeointensity

Microwave archaeointensities from Peruvian ceramics (Shaw, J., Walton, D., Yang, S., Rolph, T.C., Share, J.A.), **124,** 241

Palaeointensity studies

Theory of CRM acquired by grain growth, and its implications for TRM discrimination and palaeointensity determination in igneous rocks (McClelland, E.), **126,** 271

Palaeomagnetism

Quantitative extraction and analysis of carriers of magnetization in sediments (Hounslow, M.W., Maher, B.A.), **124,** 57
Polarity inversion in the Rajmahal lavas, north-east India: trap emplacement near commencement of the Cretaceous Normal Superchron (Das, A.K., Piper, J.D.A., Bandyopadhyay, G., Mallik, S.B.), **124,** 427
Palaeomagnetism and chronology of the central Taupo Volcanic Zone, New Zealand (Tanaka, H., Turner, G.M., Houghton, B.F., Tachibana, T., Kono, M., McWilliams, M.O.), **124,** 919
Palaeomagnetism and magnetostratigraphy of Triassic strata in the Sangre de Cristo Mountains and Tucumcari Basin, New Mexico, USA (Molina-Garza, R.S., Geissman, J.W., Lucas, S.G., Van der Voo, R.), **124,** 935
Palaeomagnetic-pole errors and a 'small-circle' assessment of the Gondwanan polar-wander path (Tarling, D.H., Abdeldayem, A.L.), **125,** 115
Ancient platform carbonates with well-developed Lofer cyclicity: new candidates for magnetostratigraphy and geodynamically oriented palaeomagnetism (Márton, E., Haas, J.), **126,** 253
Anomalous low palaeomagnetic inclinations from Oligocene–Lower Miocene red beds of the south-west Tien Shan (Chauvin, A., Perroud, H., Bazhenov, M.L.), **126,** 303
Magnetic properties of hydrothermally synthesized greigite (Fe_3S_4)—I. Rock magnetic parameters at room temperature (Dekkers, M.J., Schoonen, M.A.A.), **126,** 360
Permo-Triassic magnetostratigraphy in China: the type section near Taiyuan, Shanxi Province, North China (Embleton, B.J.J., McElhinny, M.W., Ma, X., Zhang, Z., Li, Z.X.), **126,** 382
North America during the Lower Cretaceous: new palaeomagnetic constraints from intrusions in New England (McEnroe, S.A.), **126,** 477
Statistical analysis of palaeomagnetic inclination data (Enkin, R.J., Watson, G.S.), **126,** 495
A palaeomagnetic investigation of the Mashonaland dolerites, north-east Zimbabwe (Bates, M.P., Jones, D.L.), **126,** 513
Palaeomagnetism of Permian and Triassic red beds of NW Spain and implications for the tectonic evolution of the Asturian–Cantabrian Arc (Parés, J.M., Van der Voo, R., Stamatakos, J.), **126,** 893
A detailed record of normal–reversed polarity transition obtained from a thick loess sequence at Jiuzhoutai, near Lanzhou, China (McIntosh, G., Rolph, T.C., Shaw, J., Dagley, P.), **127,** 651

Palaeostress

An analysis of shear waves observed in VSP data from the superdeep well at Kola, Russia (Digranes, P., Kristoffersen, Y., Karajev, N.), **126,** 545

Paramagnetism

Quantitative extraction and analysis of carriers of magnetization in sediments (Hounslow, M.W., Maher, B.A.), **124,** 57
Frequency-dependent susceptibility measurements of environmental materials (Dearing, J.A., Dann, R.J.L., Hay, K., Lees, J.A., Loveland, P.J., Maher, B.A., O'Grady, K.), **124,** 228

Particle orbit

Horizontal layered structure with heterogeneity beneath continents and island arcs from particle orbits of long-period *P* waves (Nishimura, T.), **127,** 773

Patras

Source investigation of a small event using empirical Green's functions and simulated annealing (Courboulex, F., Virieux, J., Deschamps, A., Gibert, D., Zollo, A.), **125,** 768

Period

Estimation of period and Q of the Chandler wobble (Furuya, M., Chao, B.F.), **127,** 693

Permafrost

Dating of thaw depths in permafrost terrain by the palaeomagnetic method: experimental acquisition of a freezing remanent magnetization (Løvlie, R., Putkonen, J.), **125,** 850

Permeability

A model for sedimentary compaction of a viscous medium and its application to inner-core growth (Sumita, I., Yoshida, S., Kumazawa, M., Hamano, Y.), **124,** 502
Propagation of tube waves generated by an external source in layered permeable rocks (Ionov, A.M., Maximov, G.A.), **124,** 888
Effects of stress on the two-dimensional permeability tensor of natural fracture networks (Zhang, X., Sanderson, D.J.), **125,** 912
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—I. Melt extraction by compaction and deformation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 616
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—II. Rayleigh–Taylor instability and sedimentation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 627

Permian

Permo-Triassic magnetostratigraphy in China: the type section near Taiyuan, Shanxi Province, North China (Embleton, B.J.J., McElhinny, M.W., Ma, X., Zhang, Z., Li, Z.X.), **126,** 382
Palaeomagnetism of Permian and Triassic red beds of NW Spain and implications for the tectonic evolution of the Asturian–Cantabrian Arc (Parés, J.M., Van der Voo, R., Stamatakos, J.), **126,** 893

Perturbation methods

Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **124,** 456
Mode-sum to ray-sum transformation in a spherical and an aspherical earth (Zhao, L., Dahlen, F.A.), **126,** 389
Uniformly valid body-wave ray theory (Liu, X.-F., Tromp, J.), **127,** 461

Peru

Microwave archaeointensities from Peruvian ceramics (Shaw, J., Walton, D., Yang, S., Rolph, T.C., Share, J.A.), **124,** 241

Phase transitions

Understanding the effects of mantle compressibility on geoid kernels (Panasyuk, S.V., Hager, B.H., Forte, A.M.), **124,** 121
Internal loading of an inhomogeneous compressible earth with phase boundaries (Defraigne, P., Dehant, V., Wahr, J.M.), **125,** 173
Microstructural development during nucleation and growth (Riedel, M.R., Karato, S.), **125,** 397
410 km discontinuity sharpness and the form of the olivine α–β phase diagram: resolution of apparent seismic contradictions (Helffrich, G.R., Wood, B.J.), **126,** F7

Phlegraean Fields

Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors (Cespuglio, G., Campus, P., Šílený, J.), **126,** 620

Planetary oblateness

Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599

Plate convergence

Inelastic models of lithospheric stress—I. Theory and application to outer-rise plate deformation (Mueller, S., Choy, G.L., Spence, W.), **125,** 39
Inelastic models of lithospheric stress—II. Implications for outer-rise seismicity and dynamics (Mueller, S., Spence, W., Choy, G.L.), **125,** 54
Distributed deformation in the subducting lithosphere at Tonga (Nothard, S., Haines, J., Jackson, J., Holt, B.), **127,** 328

Plate tectonics

Simple considerations on forces driving plate motion and on the plate-tectonic contribution to the long-wavelength geoid (Karpychev, M., Fleitout, L.), **127,** 268

Plume

Free-surface formulation of mantle convection—I. Basic theory and application to plumes (Zhong, S., Gurnis, M., Moresi, L.), **127,** 708

Poisson's ratio

Observation of converted Moho reflections in the north-west of the Iberian Peninsula (Téllez, J., Córdoba, D.), **124,** 7
Waveform inversion of marine reflection seismograms for *P* impedance and Poisson's ratio (Igel, H., Djikpéssé, H., Tarantola, A.), **124,** 363

Polar motion

Estimation of period and Q of the Chandler wobble (Furuya, M., Chao, B.F.), **127,** 693

Polarization

Elastic wave propagation in a medium containing oriented inclusions with a changing aspect ratio: a physical model study (Ass'ad, J.M., McDonald, J.A., Tatham, R.H., Kusky, T.M.), **125,** 163

Pore pressure

Pore-pressure rise, frictional strength, and fault slip: one-dimensional interaction models (Lee, T.-C.), **125,** 371

Poroelasticity

Hydraulic crack propagation in a porous medium (Fowler, A.C., Scott, D.R.), **127,** 595

Porosity

The mechanical properties of materials with interconnected cracks and pores (Hudson, J.A., Liu, E., Crampin, S.), **124,** 105
A model for sedimentary compaction of a viscous medium and its application to inner-core growth (Sumita, I., Yoshida, S., Kumazawa, M., Hamano, Y.), **124,** 502
Upper-crustal seismic velocity heterogeneity as derived from a variety of *P*-wave sonic logs (Holliger, K.), **125,** 813
Surface-wave propagation in a cracked poroelastic half-space lying under a uniform layer of fluid (Sharma, M.D.), **127,** 31

Postglacial rebound

Induced stresses and fault potential in eastern Canada due to a realistic load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **127,** 215

Potential magnetic field

Potential magnetic field and potential vorticity in magnetohydrodynamics (Hide, R.), **125,** F1

Potential vorticity

Potential magnetic field and potential vorticity in magnetohydrodynamics (Hide, R.), **125,** F1

Precambrian

Average lithospheric structure of southern Africa (Qiu, X., Priestley, K., McKenzie, D.), **127,** 563

Proterozoic

A palaeomagnetic investigation of the Mashonaland dolerites, north-east Zimbabwe (Bates, M.P., Jones, D.L.), **126,** 513

Pyrrhotite

Three-dimensional Rayleigh hysteresis of oriented core samples from the German Continental Deep Drilling Program: susceptibility tensor, Rayleigh tensor, three-dimensional Rayleigh law (Markert, H., Lehmann, A.), **127,** 201

***Q*-factor**

Estimation of period and *Q* of the Chandler wobble (Furuya, M., Chao, B.F.), **127,** 693

Quaternary

Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean (Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D.), **126,** 11

Quaternary sea level

Viscosity structure of the oceanic lithosphere inferred from the differential late Quaternary sea-level variations for the southern Cook Islands (Nakada, M.), **126,** 829

Rajmahal Traps

Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175
Polarity inversion in the Rajmahal lavas, north-east India: trap emplacement near commencement of the Cretaceous Normal Superchron (Das, A.K., Piper, J.D.A., Bandyopadhyay, G., Mallik, S.B.), **124,** 427

Ray theory

Two-dimensional multivalued traveltime and amplitude maps by uniform sampling of a ray field (Lambaré, G., Lucio, P.S., Hanyga, A.), **125,** 584
Wavefield smoothing and the effect of rough velocity perturbations on arrival times and amplitudes (Snieder, R., Lomax, A.), **125,** 796
Mode-sum to ray-sum transformation in a spherical and an aspherical earth (Zhao, L., Dahlen, F.A.), **126,** 389
The effect of random isotropic inhomogeneities on the phase velocity of seismic waves (Shapiro, S.A., Schwarz, R., Gold, N.), **127,** 783

Ray tracing

Ray tracing in random media (Witte, O., Roth, M., Müller, G.), **124,** 159
Smooth velocity models in reflection tomography for imaging complex geological structures (Lailly, P., Sinoquet, D.), **124,** 349
Unusual sub-Moho events near Bornholm, Baltic Sea: modelling of BABEL seismic wide-angle data and a tectonic interpretation (Krishna, V.G., Meissner, R., Thomas, S.A.), **125,** 193
Simultaneous inversion of reflection and refraction seismic data and application to field data from the northern Rio Grande rift (Wang, B., Braile, L.W.), **125,** 443
A 2-D velocity model of the Vrancea region in Romania: prediction of teleseismic waveforms (Perrot, J., Deschamps, A., Farra, V., Virieux, J.), **125,** 537
Two-dimensional multivalued traveltime and amplitude maps by uniform sampling of a ray field (Lambaré, G., Lucio, P.S., Hanyga, A.), **125,** 584
Irregular grids in seismic tomography and minimum-time ray tracing (Vesnaver, A.L.), **126,** 147
Teleseismic imaging of subaxial flow at mid-ocean ridges: traveltime effects of anisotropic mineral texture in the mantle (Blackman, D.K., Kendall, J.-M., Dawson, P.R., Wenk, H.-R., Boyce, D., Phipps Morgan, J.), **127,** 415

Rayleigh relations

Three-dimensional Rayleigh hysteresis of oriented core samples from the German Continental Deep Drilling Program: susceptibility tensor, Rayleigh tensor, three-dimensional Rayleigh law (Markert, H., Lehmann, A.), **127,** 201

Rayleigh waves

Imaging of shear-wave velocity structure beneath Iberia (Badal, J., Corchete, V., Payo, G., Pujades, L., Canas, J.A.), **124,** 591
Free-mode surface-wave computations (Buchen, P.W., Ben-Hador, R.), **124,** 869
Rayleigh-wave dispersion along the Hawaiian Swell: a test of lithospheric thinning by thermal rejuvenation at a hotspot (Woods, M.T, Okal, E.A.), **125,** 325
Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area (Kalogeras, I.S., Burton, P.W.), **125,** 679
Tensorial formulation of the wave equation for modelling curved interfaces (Komatitsch, D., Coutel, F., Mora, P.), **127,** 156

Reflection seismology

Ambiguity in the solution to the velocity inversion problem and a

solution by joint inversion of seismic refraction and wide-angle reflection times (Sain, K., Kaila, K.L.), **124,** 215
Smooth velocity models in reflection tomography for imaging complex geological structures (Lailly, P., Sinoquet, D.), **124,** 349
Waveform inversion of marine reflection seismograms for *P* impedance and Poisson's ratio (Igel, H., Djikpéssé, H., Tarantola, A.), **124,** 363

Refraction seismology

Ambiguity in the solution to the velocity inversion problem and a solution by joint inversion of seismic refraction and wide-angle reflection times (Sain, K., Kaila, K.L.), **124,** 215
Two-dimensional velocity models from wide-angle seismic data by wavefield inversion (Pratt, R.G., Song, Z.-M., Williamson, P., Warner, M.), **124,** 323

Remanent magnetization

Quantitative extraction and analysis of carriers of magnetization in sediments (Hounslow, M.W., Maher, B.A.), **124,** 57
Dating of thaw depths in permafrost terrain by the palaeomagnetic method: experimental acquisition of a freezing remanent magnetization (Løvlie, R., Putkonen, J.), **125,** 850
On the effect of low-temperature demagnetization on TRMs and pTRMs (Shcherbakova, V.V., Shcherbakov, V.P., Schmidt, P.W., Prevot, M.), **127,** 379

Reply

Reply to comments by G. Kosarev, N. Petersen and L. P. Vinnik on 'The use of velocity spectrum for stacking receiver functions and imaging upper mantle discontinuities'(Gurrola, H., Minster, J.B., Owens, T.), **124,** 642
Reply to comment by M. M. Deal and G. Nolet on 'Estimation of resolution and covariance for large matrix inversions' (Zhang, J., McMechan, G.A.), **127,** 251
Reply to comment by M. D. Sacchi and T. J. Ulrych on 'Simultaneous time-domain deconvolution with application to the computation of receiver functions' (Gurrola, H., Baker, G.E., Minster, J.B.), **127,** 255

Residual stress

Inelastic models of lithospheric stress—I. Theory and application to outer-rise plate deformation (Mueller, S., Choy, G.L., Spence, W.), **125,** 39

Resolution

Resolution limits for crosswell migration and traveltime tomography (Schuster, G.T.), **127,** 427

Reykjanes Ridge

Reinterpretation of the RRISP-77 Iceland shear-wave profiles (Menke, W., Brandsdóttir, B., Einarsson, P., Bjarnason, I.Th.), **126,** 166

Rheology

Deep crustal earthquakes and active faults along the Rukwa trough, eastern Africa (Camelbeeck, T., Iranga, M.D.), **124,** 612
Thermomechanical structure of European continental lithosphere: constraints from rheological profiles and EET estimates (Cloetingh, S., Burov, E.B.), **124,** 695
Microstructural development during nucleation and growth (Riedel, M.R., Karato, S.), **125,** 397
Deformation fields around a fault embedded in a non-linear ductile medium (Barr, T.D., Houseman, G.A.), **125,** 473
Variational principles for the momentum equation of mantle convection with Newtonian and power-law rheologies (Matyska, C.), **126,** 281
Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—II. Rayleigh–Taylor instability and sedimentation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 627
Free-surface formulation of mantle convection—I. Basic theory and application to plumes (Zhong, S., Gurnis, M., Moresi, L.), **127,** 708
Free-surface formulation of mantle convection—II. Implication for subduction-zone observables (Gurnis, M., Eloy, C., Zhong, S.), **127,** 719

Rifts

A tensile, flexural model for the initiation of subduction (Kemp, D.V., Stevenson, D.J.), **125,** 73
Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean (Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D.), **126,** 11
The S reflector west of Galicia: the seismic signature of a detachment fault (Reston, T.J.), **127,** 230

Rock magnetism

A systematic analysis of natural magnetic mineral assemblages based on modelling hysteresis loops with coercivity-related hyperbolic basis functions (von Dobeneck, T.), **124,** 675
Magnetic properties of hydrothermally synthesized greigite (Fe_3S_4)—I. Rock magnetic parameters at room temperature (Dekkers, M.J., Schoonen, M.A.A.), **126,** 360
Towards a quantitative description of field-impressed anisotropy of susceptibility (Stephenson, A., Potter, D.K.), **126,** 505
Three-dimensional Rayleigh hysteresis of oriented core samples from the German Continental Deep Drilling Program: susceptibility tensor, Rayleigh tensor, three-dimensional Rayleigh law (Markert, H., Lehmann, A.), **127,** 201
Magnetic mineralogy changes in the Pleistocene marine sequence of Montalto di Castro (central Italy) and influences on the magnetic anisotropy (Lehman, B., Sagnotti, L., Winkler, A., Lo Cascio, C.), **127,** 529

Rupture propagation

Estimation of high-frequency wave radiation areas on the fault plane by the envelope inversion of acceleration seismograms (Kakehi, Y., Irikura, K.), **125,** 892

***S* waves**

Waveform inversions and the significance of surface-wave mode coupling (Marquering, H., Snieder, R., Nolet, G.), **124,** 258
On seismic gyrotropy (Obolentseva, I.R.), **124,** 415
V_P/V_S ratio structure of the Lofoten continental margin, northern Norway, and its geological implications (Kodaira, S., Bellenberg, M., Iwasaki, T., Kanazawa, T., Hirschleber, H.B., Shimamura, H.), **124,** 724
Effect of 2-D topography on the 3-D seismic wavefield using a 2.5-D discrete wavenumber–boundary integral equation method (Takenaka, H., Kennett, B.L.N., Fujiwara, H.), **124,** 741
Elastic wave propagation in a medium containing oriented inclusions with a changing aspect ratio: a physical model study (Ass'ad, J.M., McDonald, J.A., Tatham, R.H., Kusky, T.M.), **125,** 163
The information content of the elastic reflection matrix (Ursin, B., Tjåland, E.), **125,** 214
Reinterpretation of the RRISP-77 Iceland shear-wave profiles (Menke, W., Brandsdóttir, B., Einarsson, P., Bjarnason, I.Th.), **126,** 166
Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays (Zielhuis, A., van der Hilst, R.D.), **127,** 1

San Clemente Island

Progressive growth of San Clemente Island, California, by blind thrust

faulting: implications for fault slip partitioning in the California Continental Borderland (Ward, S.N., Valensise, G.), **126,** 712

Satellite geodesy

High-resolution mean sea surface computed with altimeter data of ERS-1 (geodetic mission) and Topex–Poseidon (Cazenave, A., Schaeffer, P., Berge, M., Brossier, C., Dominh, K., Gennero, M.C.), **125,** 696
Hotspot–ridge interaction in the Indian Ocean: constraints from Geosat/ERM altimetry (Grevemeyer, I.), **126,** 796

Scattering

Statistical description of seismic reflection wavefields: a step towards quantitative interpretation of deep seismic reflection profiles (Hurich, C.A.), **125,** 719
Wavefield smoothing and the effect of rough velocity perturbations on arrival times and amplitudes (Snieder, R., Lomax, A.), **125,** 796
Chaotic behaviour of coda waves in the eastern Pyrenees (Correig, A.M., Urquizu, M.), **126,** 113
Estimates of seismic attenuation using vibrational resonance and pulse transmission in four large blocks of rock (Blair, D.P.), **126,** 135
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
Constraints on the velocity structure beneath the Tornquist–Teisseyre Zone from beam-forming analysis (Alsina, D., Snieder, R.), **126,** 205
Mode-sum to ray-sum transformation in a spherical and an aspherical earth (Zhao, L., Dahlen, F.A.), **126,** 389
Multiple scattering of elastic waves from a continuous and heterogeneous region (Li, X., Hudson, J.A.), **126,** 845
Simulated envelopes of non-isotropically scattered body waves as compared to observed ones: another manifestation of fractal heterogeneity (Gusev, A.A., Abubakirov, I.R.), **127,** 49
Spectral diffusion of elastic wave energy (Odom, R.I., Mercer, J.A.), **127,** 111
Wave propagation in a multiple-scattering upper mantle—observations and modelling (Tittgemeyer, M., Wenzel, F., Fuchs, K., Ryberg, T.), **127,** 492
Horizontal layered structure with heterogeneity beneath continents and island arcs from particle orbits of long-period *P* waves (Nishimura, T.), **127,** 773
The effect of random isotropic inhomogeneities on the phase velocity of seismic waves (Shapiro, S.A., Schwarz, R., Gold, N.), **127,** 783

Sea level

Glacial rebound of the British Isles—III. Constraints on mantle viscosity (Lambeck, K., Johnston, P., Smither, C., Nakada, M.), **125,** 340
Postglacial sea-level change on a rotating Earth: first results from a gravitationally self-consistent sea-level equation (Milne, G.A., Mitrovica, J.X.), **126,** F13
Tide gauge data analysis of the pole tide in the North Sea (Xie, L., Dickman, S.R.), **126,** 863
Note on estimates of the glacial–isostatic decay spectrum for Fennoscandia (Wolf, D.), **127,** 801

Sedimentary basins

Can horizontal *P* waves be trapped and resonate in a shallow sedimentary basin? (Sánchez-Sesma, F.J., Luzón, F.), **124,** 209

Sedimentation

A model for sedimentary compaction of a viscous medium and its application to inner-core growth (Sumita, I., Yoshida, S., Kumazawa, M., Hamano, Y.), **124,** 502

Sediments

Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175
Palaeomagnetism and magnetostratigraphy of Triassic strata in the Sangre de Cristo Mountains and Tucumcari Basin, New Mexico, USA (Molina-Garza, R.S., Geissman, J.W., Lucas, S.G., Van der Voo, R.), **124,** 935
A phenomenological model of orientational magnetic anisotropy of sediments (Kosterov, A.A., Shashkanov, V.A.), **125,** 149
Waveform analysis of Scholte modes in ocean sediment layers (Nolet, G.), **125,** 385
Deformation fields around a fault embedded in a non-linear ductile medium (Barr, T.D., Houseman, G.A.), **125,** 473
Dating of thaw depths in permafrost terrain by the palaeomagnetic method: experimental acquisition of a freezing remanent magnetization (Løvlie, R., Putkonen, J.), **125,** 850
Magnetic mineralogy changes in the Pleistocene marine sequence of Montalto di Castro (central Italy) and influences on the magnetic anisotropy (Lehman, B., Sagnotti, L., Winkler, A., Lo Cascio, C.), **127,** 529

Seismic coda

Chaotic behaviour of coda waves in the eastern Pyrenees (Correig, A.M., Urquizu, M.), **126,** 113
Multiple scattering of elastic waves from a continuous and heterogeneous region (Li, X., Hudson, J.A.), **126,** 845
Spectral diffusion of elastic wave energy (Odom, R.I., Mercer, J.A.), **127,** 111

Seismic modelling

Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175
Propagation of tube waves generated by an external source in layered permeable rocks (Ionov, A.M., Maximov, G.A.), **124,** 888
A 2.5-D time-domain elastodynamic equation for plane-wave incidence (Takenaka, H., Kennett, B.L.N.), **125,** F5
A 2-D velocity model of the Vrancea region in Romania: prediction of teleseismic waveforms (Perrot, J., Deschamps, A., Farra, V., Virieux, J.), **125,** 537
On the upper mantle beneath the Kenya Rift (Masotti, R., Maguire, P.K.H., Mechie, J.), **126,** 579
Causes and reduction of numerical artefacts in pseudo-spectral wavefield extrapolation (Özdenvar, T., McMechan, G.A.), **126,** 819
A 2.5-D time-domain elastodynamic equation for a general anisotropic medium (Takenaka, H., Kennett, B.L.N.), **127,** F1
Tensorial formulation of the wave equation for modelling curved interfaces (Komatitsch, D., Coutel, F., Mora, P.), **127,** 156

Seismic moment

Seismic source parameters in New Zealand from broad-band data (Nformi, S., Mao, W., Gubbins, D.), **124,** 289
Seismic moment assessment of earthquakes in stable continental regions—I. Instrumental seismicity (Johnston, A.C.), **124,** 381
Seismic moment assessment of earthquakes in stable continental regions—II. Historical seismicity (Johnston, A.C.), **125,** 639
Seismic moment assessment of earthquakes in stable continental regions—III. New Madrid 1811–1812, Charleston 1886 and Lisbon 1755 (Johnston, A.C.), **126,** 314
Large-magnitude Central American earthquakes, 1898–1994 (Ambraseys, N.N., Adams, R.D.), **127,** 665

Seismic noise

Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors (Cespuglio, G., Campus, P., Šílený, J.), **126,** 620

Seismic quiescence

Quantitative mapping of a precursory seismic quiescence to the Izu–Oshima 1990 (M6.5) earthquake, Japan (Wyss, M., Shimazaki, K., Urabe, T.), **127,** 735

Seismic reflection

The information content of the elastic reflection matrix (Ursin, B., Tjåland, E.), **125,** 214
Simultaneous inversion of reflection and refraction seismic data and application to field data from the northern Rio Grande rift (Wang, B., Braile, L.W.), **125,** 443
Reflection seismic investigations in the volcaniclastic apron of Gran Canaria and implications for its volcanic evolution (Funck, T., Dickmann, T., Rihm, R., Krastel, S., Lykke-Andersen, H., Schmincke, H.-U.), **125,** 519
Statistical description of seismic reflection wavefields: a step towards quantitative interpretation of deep seismic reflection profiles (Hurich, C.A.), **125,** 719
The S reflector west of Galicia: the seismic signature of a detachment fault (Reston, T.J.), **127,** 230

Seismic reflection data

A towed geophone system for use in snow-covered terrain (King, E.C., Bell, A.C.), **126,** 54

Seismic reflection imaging

Seismic image waves (Hubral, P., Tygel, M., Schleicher, J.), **125,** 431

Seismic refraction

Seismic velocities of the uppermost igneous crust versus age (Grevemeyer, I., Weigel, W.), **124,** 631
Thin crust on the flanks of the slow-spreading Southwest Indian Ridge (Minshull, T.A., White, R.S.), **125,** 139
Simultaneous inversion of reflection and refraction seismic data and application to field data from the northern Rio Grande rift (Wang, B., Braile, L.W.), **125,** 443
Seismic anisotropy within the uppermost mantle of southern Germany (Enderle, U., Mechie, J., Sobolev, S., Fuchs, K.), **125,** 747
Wave propagation in a multiple-scattering upper mantle—observations and modelling (Tittgemeyer, M., Wenzel, F., Fuchs, K., Ryberg, T.), **127,** 492

Seismic resolution

A computationally feasible approximate resolution matrix for seismic inverse problems (Minkoff, S.E.), **126,** 345

Seismic structure

Côte d'Ivoire–Ghana margin: seismic imaging of passive rifted crust adjacent to a transform continental margin (Peirce, C., Whitmarsh, R.B., Scrutton, R.A., Pontoise, B., Sage, F., Mascle, J.), **125,** 781

Seismic tomography

Comparison between tomographic structures and models of convection in the upper mantle (Vacher, P., Mocquet, A., Sotin, C.), **124,** 45
Two-dimensional velocity models from wide-angle seismic data by wavefield inversion (Pratt, R.G., Song, Z.-M., Williamson, P., Warner, M.), **124,** 323
Nullspace shuttles (Deal, M., Nolet, G.), **124,** 372
Simultaneous inversion of reflection and refraction seismic data and application to field data from the northern Rio Grande rift (Wang, B., Braile, L.W.), **125,** 443
Seismic anisotropy in the north-eastern US as a source of significant teleseismic P traveltime anomalies (Levin, V., Menke, W., Lerner-Lam, A.), **126,** 593

Seismic velocities

Smooth velocity models in reflection tomography for imaging complex geological structures (Lailly, P., Sinoquet, D.), **124,** 349
Teleseismic body waveforms and receiver structures beneath seismic stations (Zhao, L.-S., Frohlich, C.), **124,** 525
Seismic velocities of the uppermost igneous crust versus age (Grevemeyer, I., Weigel, W.), **124,** 631
V_P/V_S ratio structure of the Lofoten continental margin, northern Norway, and its geological implications (Kodaira, S., Bellenberg, M., Iwasaki, T., Kanazawa, T., Hirschleber, H.B., Shimamura, H.), **124,** 724
Direct calculation of interval velocities and layer thicknesses from seismic wide-angle reflection times (Sain, K., Kaila, K.L.), **125,** 30
Velocity structure of upper-mantle transition zones beneath central Eurasia from seismic inversion using genetic algorithms (Neves, F.A., Singh, S.C., Priestley, K.F.), **125,** 869
Effects of fractures on seismic-wave velocity and attenuation (Boadu, F.K., Long, L.T.), **127,** 86
The effect of random isotropic inhomogeneities on the phase velocity of seismic waves (Shapiro, S.A., Schwarz, R., Gold, N.), **127,** 783

Seismic waves

The mechanical properties of materials with interconnected cracks and pores (Hudson, J.A., Liu, E., Crampin, S.), **124,** 105
Linear matrix operations for multicomponent seismic processing (Macbeth, C., Li, X.-Y.), **124,** 189
A 2.5-D time-domain elastodynamic equation for plane-wave incidence (Takenaka, H., Kennett, B.L.N.), **125,** F5
Transmission properties of a plane fault (Hudson, J.A., Liu, E., Crampin, S.), **125,** 559
Estimates of seismic attenuation using vibrational resonance and pulse transmission in four large blocks of rock (Blair, D.P.), **126,** 135
A 2.5-D time-domain elastodynamic equation for a general anisotropic medium (Takenaka, H., Kennett, B.L.N.), **127,** F1
Simulated envelopes of non-isotropically scattered body waves as compared to observed ones: another manifestation of fractal heterogeneity (Gusev, A.A., Abubakirov, I.R.), **127,** 49

Seismic-wave propagation

On seismic gyrotropy (Obolentseva, I.R.), **124,** 415
Determination of seismic-wave attenuation by complex trace analysis (Engelhard, L.), **125,** 608

Seismicity

The cyclic and fractal seismic series preceding an m_b 4.8 earthquake on 1980 February 14 near the Virgin Islands (Varnes, D.J., Bufe, C.G.), **124,** 149
Seismic source parameters in New Zealand from broad-band data (Nformi, S., Mao, W., Gubbins, D.), **124,** 289
Effect of limited data sets in evaluating the scaling properties of spatially distributed data: an example from mining-induced seismic activity (Eneva, M.), **124,** 773
Inelastic models of lithospheric stress—II. Implications for outer-rise seismicity and dynamics (Mueller, S., Spence, W., Choy, G.L.), **125,** 54
Induced stresses and fault potential in eastern Canada due to a disc load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **125,** 415
Multifractal analysis of the spatial distribution of earthquakes in southern Italy (Godano, C., Alonzo, M.L., Bottari, A.), **125,** 901
Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17
Induced stresses and fault potential in eastern Canada due to a realistic load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **127,** 215
Large-magnitude Central American earthquakes, 1898–1994 (Ambraseys, N.N., Adams, R.D.), **127,** 665
Quantitative mapping of a precursory seismic quiescence to the

Izu–Oshima 1990 (*M*6.5) earthquake, Japan (Wyss, M., Shimazaki, K., Urabe, T.), **127,** 735

Seismograms

Broad-band modelling of regional seismograms: the Basin and Range crustal structure (Song, X.J., Helmberger, D.V., Zhao, L.), **125,** 15

Seismology

Telescismic body waveforms and receiver structures beneath seismic stations (Zhao, L.-S., Frohlich, C.), **124,** 525
Effect of limited data sets in evaluating the scaling properties of spatially distributed data: an example from mining-induced seismic activity (Eneva, M.), **124,** 773
How to reconcile body-wave and normal-mode reference earth models (Montagner, J.-P., Kennett, B.L.N.), **125,** 229
410 km discontinuity sharpness and the form of the olivine α–β phase diagram: resolution of apparent seismic contradictions (Helffrich, G.R., Wood, B.J.), **126,** F7
Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays (Zielhuis, A., van der Hilst, R.D.), **127,** 1

Sensitivity analysis

Sensitivity study of seismic reflection/refraction data (Neves, F.A., Singh, S.C.), **126,** 470

Shear stress

Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—I. Melt extraction by compaction and deformation (Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B.), **127,** 616

Shear waves

How does the shear-wave structure of the seabed affect the seismic wavefield? (Kennett, B.L.N.), **124,** 341

Shear-wave splitting

Tectonic implications of *S*-wave anisotropy beneath SE Brazil (James, D.E., Assumpção, M.), **126,** 1

Shear-wave velocity structure

Shear-wave velocity structure beneath Europe, the northeastern Atlantic and western Asia from waveform inversions including surface-wave mode coupling (Marquering, H., Snieder, R.), **127,** 283

Siberia

Magnetostratigraphy of the Moyero river section (north-western Siberia): constraints on geomagnetic reversal frequency during the early Palaeozoic (Gallet, Y., Pavlov, V.), **125,** 95

Slichter mode

The subseismic approximation in core dynamics—II. Love numbers and surface gravity (Crossley, D.J., Rochester, M.G.), **125,** 830

Soils

Magnetic susceptibility of soil: an evaluation of conflicting theories using a national data set (Dearing, J.A., Hay, K.L., Baban, S.M.J., Huddleston, A.S., Wellington, E.M.H., Loveland, P.J.), **127,** 728

Source parameters

Elastic full-waveform inversion for earthquake source parameters (Wu, Y., McMechan, G.A.), **127,** 61

Source time functions

Detecting slow, long-duration slip of large earthquakes using very long-period orbital surface waves (Li, X.-Q., Nábelek, J.), **124,** 483
Source investigation of a small event using empirical Green's functions and simulated annealing (Courboulex, F., Virieux, J., Deschamps, A., Gibert, D., Zollo, A.), **125,** 768
A computationally feasible approximate resolution matrix for seismic inverse problems (Minkoff, S.E.), **126,** 345
Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors (Cespuglio, G., Campus, P., Šílený, J.), **126,** 620

Southern Africa

Average lithospheric structure of southern Africa (Qiu, X., Priestley, K., McKenzie, D.), **127,** 563

Southern Alps

Magnetotelluric soundings across the South Island of New Zealand: electrical structure associated with the orogen of the Southern Alps (Ingham, M.), **124,** 134

Southern Tyrrhenian

State of stress in the Southern Tyrrhenian subduction zone from fault-plane solutions (Frepoli, A., Selvaggi, G., Chiarabba, C., Amato, A.), **125,** 879

Southwest Indian Ridge

Thin crust on the flanks of the slow-spreading Southwest Indian Ridge (Minshull, T.A., White, R.S.), **125,** 139

Spectral analysis

Depth estimation from the scaling power spectrum of potential fields? (Maus, S., Dimri, V.), **124,** 113
Detecting slow, long-duration slip of large earthquakes using very long-period orbital surface waves (Li, X.-Q., Nábelek, J.), **124,** 483
Reciprocity theorems for one-way wavefields (Wapenaar, C.P.A., Grimbergen, J.L.T.), **127,** 169
Statistics and geometry of the eigenspectra of three-dimensional second-rank symmetric random tensors (Xu, P., Grafarend, E.), **127,** 744

Spherical harmonics

RATGP95: a harmonic development of the tide-generating potential using an analytical method (Roosbeek, F.), **126,** 197
A simple approach to the transformation of spherical harmonic models under coordinate system rotation (De Santis, A., Torta, J.M., Falcone, C.), **126,** 263
On the derivation of the Earth's conductivity structure by means of spherical cap harmonic analysis (Torta, J.M., De Santis, A.), **127,** 441

***Sq* variations**

On the anomalous features of the geomagnetic quiet-day field variations at Nagpur, India (Chandrasekhar, E., Alex, S.), **127,** 703

Stable continental regions

Seismic moment assessment of earthquakes in stable continental regions—I. Instrumental seismicity (Johnston, A.C.), **124,** 381
Seismic moment assessment of earthquakes in stable continental regions—II. Historical seismicity (Johnston, A.C.), **125,** 639

Staggered grids

Improved methods for solving for the magnetic field in E-polarization induction problems with fixed and staggered grids (Weaver, J.T., Pu, X.H., Agarwal, A.K.), **126,** 437

Statistical analysis

Repeated GPS surveys across the Ionian Sea: evidence of crustal deformations (Anzidei, M., Baldi, P., Casula, G., Crespi, M., Riguzzi, F.), **127,** 257

Statistical methods

Effect of limited data sets in evaluating the scaling properties of spatially distributed data: an example from mining-induced seismic activity (Eneva, M.), **124,** 773
Upper-crustal seismic velocity heterogeneity as derived from a variety of *P*-wave sonic logs (Holliger, K.), **125,** 813
A two-dimensional magnetotelluric inversion assuming Gaussian static shift (Ogawa, Y., Uchida, T.), **126,** 69
Statistical discrimination of foreshocks from other earthquake clusters (Ogata, Y., Utsu, T., Katsura, K.), **127,** 17

Stress

Induced stresses and fault potential in eastern Canada due to a realistic load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **127,** 215

Stress distribution

A tensile, flexural model for the initiation of subduction (Kemp, D.V., Stevenson, D.J.), **125,** 73
Induced stresses and fault potential in eastern Canada due to a disc load: a preliminary analysis (Wu, P., Hasegawa, H.S.), **125,** 415
Deformation fields around a fault embedded in a non-linear ductile medium (Barr, T.D., Houseman, G.A.), **125,** 473
An improved method for the determination of the tectonic stress field from focal mechanism data (Yin, Z.-M.), **125,** 841
Estimates of stress directions by inversion of earthquake fault-plane solutions in Sicily (Caccamo, D., Neri, G., Sarao, A., Wyss, M.), **125,** 857
Dynamic models of subduction: geophysical and geological evidence in the Tyrrhenian Sea (Giunchi, C., Sabadini, R., Boschi, E., Gasperini, P.), **126,** 555

Strike slip

Fault trace complexity, cumulative slip, and the shape of the magnitude–frequency distribution for strike-slip faults: a global survey (Stirling, M.W., Wesnousky, S.G., Shimazaki, K.), **124,** 833
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—I (Lallemant, S.J., Le Pichon, X., Thoué, F., Henry, P., Saito, S.), **126,** 871
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—II (Pollitz, F.F., Le Pichon, X., Lallemant, S.J.), **126,** 882

Strong ground motion

Non-linear temperature and pressure waves in fluid-saturated porous rocks (Natale, G., Salusti, E.), **124,** 649
Estimation of high-frequency wave radiation areas on the fault plane by the envelope inversion of acceleration seismograms (Kakehi, Y., Irikura, K.), **125,** 892

Subduction

Seismic source parameters in New Zealand from broad-band data (Nformi, S., Mao, W., Gubbins, D.), **124,** 289
Inelastic models of lithospheric stress—II. Implications for outer-rise seismicity and dynamics (Mueller, S., Spence, W., Choy, G.L.), **125,** 54
A tensile, flexural model for the initiation of subduction (Kemp, D.V., Stevenson, D.J.), **125,** 73
Global creepex distribution and its relation to earthquake-source geometry and tectonic origin (Kaverina, A.N., Lander, A.V., Prozorov, A.G.), **125,** 249
Microstructural development during nucleation and growth (Riedel, M.R., Karato, S.), **125,** 397
State of stress in the Southern Tyrrhenian subduction zone from fault-plane solutions (Frepoli, A., Selvaggi, G., Chiarabba, C., Amato, A.), **125,** 879
Dynamic models of subduction: geophysical and geological evidence in the Tyrrhenian Sea (Giunchi, C., Sabadini, R., Boschi, E., Gasperini, P.), **126,** 555
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—I (Lallemant, S.J., Le Pichon, X., Thoué, F., Henry, P., Saito, S.), **126,** 871
Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—II (Pollitz, F.F., Le Pichon, X., Lallemant, S.J.), **126,** 882
Gaussian curvature and the relationship between the shape and the deformation of the Tonga slab (Nothard, S., McKenzie, D., Haines, J., Jackson, J.), **127,** 311
Distributed deformation in the subducting lithosphere at Tonga (Nothard, S., Haines, J., Jackson, J., Holt, B.), **127,** 328
Free-surface formulation of mantle convection—II. Implication for subduction-zone observables (Gurnis, M., Eloy, C., Zhong, S.), **127,** 719

Surface waves

Detecting slow, long-duration slip of large earthquakes using very long-period orbital surface waves (Li, X.-Q., Nábelek, J.), **124,** 483
Free-mode surface-wave computations (Buchen, P.W., Ben-Hador, R.), **124,** 869
Wave diffraction in multilayered media with the Indirect Boundary Element Method: application to 3-D diffraction of long-period surface waves by 2-D lithospheric structures (Pedersen, H.A., Maupin, V., Campillo, M.), **125,** 545
Surface waves in layered anisotropic structures (Park, J.), **126,** 173
Constraints on the velocity structure beneath the Tornquist–Teisseyre Zone from beam-forming analysis (Alsina, D., Snieder, R.), **126,** 205
Observability of the isotropic component of a moment tensor (Kawakatsu, H.), **126,** 525
Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays (Zielhuis, A., van der Hilst, R.D.), **127,** 1
Frequency-dependent relocation of the 1992 Nicaragua slow earthquake: an empirical Green's function approach (Ihmlé, P.F.), **127,** 75

Svalbard Archipelago

Deglacial land emergence and lateral upper-mantle heterogeneity in the Svalbard Archipelago—II. Extended results for high-resolution load models (Kaufmann, G., Wolf, D.), **127,** 125

Swiss Alps

A lithospheric cross-section through the Swiss Alps—I. Thermokinematic modelling of the Neoalpine orogeny (Okaya, N., Freeman, R., Kissling, E., Mueller, St.), **125,** 504
A lithospheric cross-section through the Swiss Alps—II. Constraints

on the mechanical structure of a continent–continent collision zone (Okaya, N., Cloetingh, S., Mueller, St.), **127,** 399

Synthetic seismograms

Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175
Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth (Clévédé, E., Lognonné, P.), **124,** 456
2.5-D modelling of elastic waves using the pseudospectral method (Furumura, T., Takenaka, H.), **124,** 820
Propagation of tube waves generated by an external source in layered permeable rocks (Ionov, A.M., Maximov, G.A.), **124,** 888
A 2.5-D time-domain elastodynamic equation for plane-wave incidence (Takenaka, H., Kennett, B.L.N.), **125,** F5
Surface waves in layered anisotropic structures (Park, J.), **126,** 173
Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach (Shapiro, S.A., Hubral, P., Ursin, B.), **126,** 184
Estimation of finite-frequency waveforms through wavelength-dependent averaging of velocity (Lomax, A., Snieder, R.), **126,** 369
The radiation modes of a vertically varying half-space: a new representation of the complete Green's function in terms of modes (Maupin, V.), **126,** 762
A 2.5-D time-domain elastodynamic equation for a general anisotropic medium (Takenaka, H., Kennett, B.L.N.), **127,** F1
Uniformly valid body-wave ray theory (Liu, X.-F., Tromp, J.), **127,** 461

Taupo Volcanic Zone

Palaeomagnetism and chronology of the central Taupo Volcanic Zone, New Zealand (Tanaka, H., Turner, G.M., Houghton, B.F., Tachibana, T., Kono, M., McWilliams, M.O.), **124,** 919

Tectonics

Thermomechanical structure of European continental lithosphere: constraints from rheological profiles and EET estimates (Cloetingh, S., Burov, E.B.), **124,** 695
Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean (Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D.), **126,** 11
Palaeomagnetism of Permian and Triassic red beds of NW Spain and implications for the tectonic evolution of the Asturian–Cantabrian Arc (Parés, J.M., Van der Voo, R., Stamatakos, J.), **126,** 893
Present-day deformation of the Dauphiné Alpine and Subalpine massifs (SE France) (Martinod, J., Jouanne, F., Taverna, J., Ménard, G., Gamond, J.-F., Darmendrail, X., Notter, J.-C., Basile, C.), **127,** 189

Tertiary

Anomalous low palaeomagnetic inclinations from Oligocene–Lower Miocene red beds of the south-west Tien Shan (Chauvin, A., Perroud, H., Bazhenov, M.L.), **126,** 303

Thermal conductivity

Palaeoclimate and structure: the most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland (Kukkonen, I.T., Šafanda, J.), **126,** 101

Thermal and hydraulic field

Thermal and hydraulic aspects of the KTB drill site (Kohl, T., Rybach, L.), **124,** 756

Tibet

Rate of left-lateral movement along the easternmost segment of the Altyn Tagh fault, east of 96°E (China) (Meyer, B., Tapponnier, P., Gaudemer, Y., Peltzer, G., Shunmin, G., Zhitai, C.), **124,** 29
Application of very fast simulated annealing to the determination of the crustal structure beneath Tibet (Zhao, L.-S., Sen, M.K., Stoffa, P., Frohlich, C.), **125,** 355

Tides

Test of theoretical solid earth and ocean gravity tides (Goodkind, J.M.), **125,** 106
RATGP95: a harmonic development of the tide-generating potential using an analytical method (Roosbeek, F.), **126,** 197
Tide gauge data analysis of the pole tide in the North Sea (Xie, L., Dickman, S.R.), **126,** 863

Titanomaghemite

Magnetic domain observations on magnetite and titanomaghemite grains (0.5–10μm) (Geiss, C.E., Heider, F., Soffel, H.C.), **124,** 75
North America during the Lower Cretaceous: new palaeomagnetic constraints from intrusions in New England (McEnroe, S.A.), **126,** 477

Tomography

Ray tracing in random media (Witte, O., Roth, M., Müller, G.), **124,** 159
Wavefield smoothing and the effect of rough velocity perturbations on arrival times and amplitudes (Snieder, R., Lomax, A.), **125,** 796
Anisotropy and *P*-wave tomography: a new approach for inverting teleseismic data from a dense array of stations (Grésillaud, A., Cara, M.), **126,** 77
Irregular grids in seismic tomography and minimum-time ray tracing (Vesnaver, A.L.), **126,** 147
Resolution limits for crosswell migration and traveltime tomography (Schuster, G.T.), **127,** 427
Uniformly valid body-wave ray theory (Liu, X.-F., Tromp, J.), **127,** 461

Tonga slab

Gaussian curvature and the relationship between the shape and the deformation of the Tonga slab (Nothard, S., McKenzie, D., Haines, J., Jackson, J.), **127,** 311
Distributed deformation in the subducting lithosphere at Tonga (Nothard, S., Haines, J., Jackson, J., Holt, B.), **127,** 328

Topography

Analytic solutions for Stokes' flow with lateral variations in viscosity (Zhong, S.), **124,** 18
Effect of 2-D topography on the 3-D seismic wavefield using a 2.5-D discrete wavenumber–boundary integral equation method (Takenaka, H., Kennett, B.L.N., Fujiwara, H.), **124,** 741
Internal loading of an inhomogeneous compressible earth with phase boundaries (Defraigne, P., Dehant, V., Wahr, J.M.), **125,** 173
Topographic core–mantle coupling and polar motion on decadal time-scales (Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A.), **125,** 599
Newly compiled gravity and topographic data banks of Greece (Lagios, E., Chailas, S., Hipkin, R.G.), **126,** 287
Tensorial formulation of the wave equation for modelling curved interfaces (Komatitsch, D., Coutel, F., Mora, P.), **127,** 156
Two-dimensional geoid modelling: some remarks on Chapman's algorithm (Ayala, C., Fernàndez, M., Torné, M., Pous, J.), **127,** 542
Free-surface formulation of mantle convection—I. Basic theory and application to plumes (Zhong, S., Gurnis, M., Moresi, L.), **127,** 708
Free-surface formulation of mantle convection—II. Implication for subduction-zone observables (Gurnis, M., Eloy, C., Zhong, S.), **127,** 719

Tornquist Zone

Constraints on the velocity structure beneath the Tornquist–Teisseyre Zone from beam-forming analysis (Alsina, D., Snieder, R.), **126,** 205

Tornquist–Tesseyre Zone

Ensemble inference in terms of empirical orthogonal functions (Douma, H., Snieder, R., Lomax, A.), **127,** 363

TPW (true polar wander)

Significance of the fundamental mantle rotational relaxation mode in polar wander simulations (Vermeersen, L.L.A., Sabadini, R.), **127,** F5

Transition

Velocity structure of upper-mantle transition zones beneath central Eurasia from seismic inversion using genetic algorithms (Neves, F.A., Singh, S.C., Priestley, K.F.), **125,** 869

Transmission line

Effects of fractures on seismic-wave velocity and attenuation (Boadu, F.K., Long, L.T.), **127,** 86

Traveltime

On the effect of diffraction on traveltime measurements (Gudmundsson, O.), **124,** 304
Two-dimensional multivalued traveltime and amplitude maps by uniform sampling of a ray field (Lambaré, G., Lucio, P.S., Hanyga, A.), **125,** 584
Anisotropy and *P*-wave tomography: a new approach for inverting teleseismic data from a dense array of stations (Grésillaud, A., Cara, M.), **126,** 77
Irregular grids in seismic tomography and minimum-time ray tracing (Vesnaver, A.L.), **126,** 147
Ellipticity corrections for seismic phases (Kennett, B.L.N., Gudmundsson, O.), **127,** 40
S–P-wave traveltime residuals from earthquakes and lateral inhomogeneity in the upper mantle beneath the Aegean and the Hellenic Trench near Crete (Taymaz, T.), **127,** 545

Traveltime anomalies

Determination of crustal structure in central Australia by inversion of traveltime residuals (McQueen, H.W.S., Lambeck, K.), **126,** 645

Triassic

Palaeomagnetism and magnetostratigraphy of Triassic strata in the Sangre de Cristo Mountains and Tucumcari Basin, New Mexico, USA (Molina-Garza, R.S., Geissman, J.W., Lucas, S.G., Van der Voo, R.), **124,** 935
Ancient platform carbonates with well-developed Lofer cyclicity: new candidates for magnetostratigraphy and geodynamically oriented palaeomagnetism (Márton, E., Haas, J.), **126,** 253
Permo-Triassic magnetostratigraphy in China: the type section near Taiyuan, Shanxi Province, North China (Embleton, B.J.J., McElhinny, M.W., Ma, X., Zhang, Z., Li, Z.X.), **126,** 382
Palaeomagnetism of Permian and Triassic red beds of NW Spain and implications for the tectonic evolution of the Asturian–Cantabrian Arc (Parés, J.M., Van der Voo, R., Stamatakos, J.), **126,** 893
Magnetobiostratigraphy of the Spathian to Anisian (Lower to Middle Triassic) Kçira section, Albania (Muttoni, G., Kent, D.V., Meço, S., Nicora, A., Gaetani, M., Balini, M., Germani, D., Rettori, R.), **127,** 503

TRM discrimination

Theory of CRM acquired by grain growth, and its implications for TRM discrimination and palaeointensity determination in igneous rocks (McClelland, E.), **126,** 271

Turkey

S–P-wave traveltime residuals from earthquakes and lateral inhomogeneity in the upper mantle beneath the Aegean and the Hellenic Trench near Crete (Taymaz, T.), **127,** 545

Tyrrhenian Sea

Dynamic models of subduction: geophysical and geological evidence in the Tyrrhenian Sea (Giunchi, C., Sabadini, R., Boschi, E., Gasperini, P.), **126,** 555
The dynamics of back-arc extension: an experimental approach to the opening of the Tyrrhenian Sea (Faccenna, C., Davy, P., Brun, J.-P., Funiciello, R., Giardini, D., Mattei, M., Nalpas, T.), **126,** 781

Uplift

Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean (Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D.), **126,** 11

Upper crust

Thermal and hydraulic aspects of the KTB drill site (Kohl, T., Rybach, L.), **124,** 756
Upper-crustal seismic velocity heterogeneity as derived from a variety of *P*-wave sonic logs (Holliger, K.), **125,** 813

Upper mantle

Observation of converted Moho reflections in the north-west of the Iberian Peninsula (Téllez, J., Córdoba, D.), **124,** 7
Comparison between tomographic structures and models of convection in the upper mantle (Vacher, P., Mocquet, A., Sotin, C.), **124,** 45
Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area (Kalogeras, I.S., Burton, P.W.), **125,** 679
Seismic anisotropy within the uppermost mantle of southern Germany (Enderle, U., Mechie, J., Sobolev, S., Fuchs, K.), **125,** 747
Velocity structure of upper-mantle transition zones beneath central Eurasia from seismic inversion using genetic algorithms (Neves, F.A., Singh, S.C., Priestley, K.F.), **125,** 869
On the upper mantle beneath the Kenya Rift (Masotti, R., Maguire, P.K.H., Mechie, J.), **126,** 579
Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays (Zielhuis, A., van der Hilst, R.D.), **127,** 1
Teleseismic imaging of subaxial flow at mid-ocean ridges: traveltime effects of anisotropic mineral texture in the mantle (Blackman, D.K., Kendall, J.-M., Dawson, P.R., Wenk, H.-R., Boyce, D., Phipps Morgan, J.), **127,** 415
Wave propagation in a multiple-scattering upper mantle—observations and modelling (Tittgemeyer, M., Wenzel, F., Fuchs, K., Ryberg, T.), **127,** 492
Average lithospheric structure of southern Africa (Qiu, X., Priestley, K., McKenzie, D.), **127,** 563

Velocity gradient

Constraints on the velocity structure beneath the Tornquist–Teisseyre Zone from beam-forming analysis (Alsina, D., Snieder, R.), **126,** 205

Vibrating coil magnetometer

Three-dimensional Rayleigh hysteresis of oriented core samples from

the German Continental Deep Drilling Program: susceptibility tensor, Rayleigh tensor, three-dimensional Rayleigh law (Markert, H., Lehmann, A.), **127,** 201

Virgin Islands

The cyclic and fractal seismic series preceding an m_b 4.8 earthquake on 1980 February 14 near the Virgin Islands (Varnes, D.J., Bufe, C.G.), **124,** 149

Viscoelasticity

Viscoelastic relaxation of a Burgers half-space: implications for the interpretation of the Fennoscandian uplift (Rümpker, G., Wolf, D.), **124,** 541
Viscoelastic mantle density heterogeneity and core–mantle topography (Greff-Lefftz, M., Legros, H.), **125,** 567
A computationally feasible approximate resolution matrix for seismic inverse problems (Minkoff, S.E.), **126,** 345
Some analytical solutions for the viscoelastic gravitational relaxation of a two-layer non-self-gravitating incompressible spherical earth (Wu, P., Ni, Z.), **126,** 413
Compressible rotational deformation (Vermeersen, L.L.A., Sabadini, R., Spada, G.), **126,** 735
Initial-value and modal approaches for transient viscoelastic responses with complex viscosity profiles (Hanyk, L., Yuen, D.A., Matyska, C.), **127,** 348

Viscosity

Analytic solutions for Stokes' flow with lateral variations in viscosity (Zhong, S.), **124,** 18
Frequency-dependent susceptibility measurements of environmental materials (Dearing, J.A., Dann, R.J.L., Hay, K., Lees, J.A., Loveland, P.J., Maher, B.A., O'Grady, K.), **124,** 228

Volcanic activity

Palaeomagnetism and chronology of the central Taupo Volcanic Zone, New Zealand (Tanaka, H., Turner, G.M., Houghton, B.F., Tachibana, T., Kono, M., McWilliams, M.O.), **124,** 919
Reflection seismic investigations in the volcaniclastic apron of Gran Canaria and implications for its volcanic evolution (Funck, T., Dickmann, T., Rihm, R., Krastel, S., Lykke-Andersen, H., Schmincke, H.-U.), **125,** 519

V_P/V_S ratio

V_P/V_S ratio structure of the Lofoten continental margin, northern Norway, and its geological implications (Kodaira, S., Bellenberg, M., Iwasaki, T., Kanazawa, T., Hirschleber, H.B., Shimamura, H.), **124,** 724

Vrancea region

A 2-D velocity model of the Vrancea region in Romania: prediction of teleseismic waveforms (Perrot, J., Deschamps, A., Farra, V., Virieux, J.), **125,** 537

VSP

An analysis of shear waves observed in VSP data from the superdeep well at Kola, Russia (Digranes, P., Kristoffersen, Y., Karajev, N.), **126,** 545

Wave conversions

How does the shear-wave structure of the seabed affect the seismic wavefield? (Kennett, B.L.N.), **124,** 341

Wave equation

A 2.5-D time-domain elastodynamic equation for plane-wave incidence (Takenaka, H., Kennett, B.L.N.), **125,** F5
Causes and reduction of numerical artefacts in pseudo-spectral wavefield extrapolation (Özdenvar, T., McMechan, G.A.), **126,** 819
Tensorial formulation of the wave equation for modelling curved interfaces (Komatitsch, D., Coutel, F., Mora, P.), **127,** 156
Reciprocity theorems for one-way wavefields (Wapenaar, C.P.A., Grimbergen, J.L.T.), **127,** 169
One-way representations of seismic data (Wapenaar, C.P.A.), **127,** 178

Wave propagation

On the effect of diffraction on traveltime measurements (Gudmundsson, O.), **124,** 304
How does the shear-wave structure of the seabed affect the seismic wavefield? (Kennett, B.L.N.), **124,** 341
Effect of 2-D topography on the 3-D seismic wavefield using a 2.5-D discrete wavenumber–boundary integral equation method (Takenaka, T., Kennett, B.L.N., Fujiwara, H.), **124,** 741
Propagation of tube waves generated by an external source in layered permeable rocks (Ionov, A.M., Maximov, G.A.), **124,** 888
Two-dimensional multivalued traveltime and amplitude maps by uniform sampling of a ray field (Lambaré, G., Lucio, P.S., Hanyga, A.), **125,** 584
Wavefield smoothing and the effect of rough velocity perturbations on arrival times and amplitudes (Snieder, R., Lomax, A.), **125,** 796
Surface waves in layered anisotropic structures (Park, J.), **126,** 173
Estimation of finite-frequency waveforms through wavelength-dependent averaging of velocity (Lomax, A., Snieder, R.), **126,** 369
Wave propagation in a multiple-scattering upper mantle—observations and modelling (Tittgemeyer, M., Wenzel, F., Fuchs, K., Ryberg, T.), **127,** 492
The effect of random isotropic inhomogeneities on the phase velocity of seismic waves (Shapiro, S.A., Schwarz, R., Gold, N.), **127,** 783

Waveform analysis

Detecting slow, long-duration slip of large earthquakes using very long-period orbital surface waves (Li, X.-Q., Nábelek, J.), **124,** 483
Waveform analysis of Scholte modes in ocean sediment layers (Nolet, G.), **125,** 385
Seismic moment tensor resolution by waveform inversion of a few local noisy records—I. Synthetic tests (Šílený, J., Campus, P., Panza, G.F.), **126,** 605
Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors (Cespuglio, G., Campus, P., Šílený, J.), **126,** 620

Waveform inversion

Sensitivity study of seismic reflection/refraction data (Neves, F.A., Singh, S.C.), **126,** 470
Elastic full-waveform inversion for earthquake source parameters (Wu, Y., McMechan, G.A.), **127,** 61

West Bengal basin

Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies (Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R.), **124,** 175

Zagros mountains

Numerical modelling of the deformation of the Iranian plateau (Sobouti, F., Arkani-Hamed, J.), **126,** 805

Zimbabwe

A palaeomagnetic investigation of the Mashonaland dolerites, north-east Zimbabwe (Bates, M.P., Jones, D.L.), **126,** 513

Geophysical journal international author index by volume 124–127

Abdeldayem, A.L. *see* Tarling, D.H.
Abubakirov, I.R. *see* Gusev, A.A.
Adams, R.D. *see* Ambraseys, N.N.
Agarwal, A.K. *see* Weaver, J.T.
Alex, S. *see* Chandrasekhar, E.
Alonzo, M.L. *see* Godano, C.
Alsina, D., Snieder, R., Constraints on the velocity structure beneath the Tornquist–Teisseyre Zone from beam-forming analysis, **126,** 205
Amato, A. *see* Frepoli, A.
Ambraseys, N.N., Adams, R.D., Large-magnitude Central American earthquakes, 1898–1994 , **127,** 665
Anzidei, M., Baldi, P., Casula, G., Crespi, M., Riguzzi, F., Repeated GPS surveys across the Ionian Sea: evidence of crustal deformations, **127,** 257
Arabelos, D., Tziavos, I.N., Combination of ERS-1 and TOPEX altimetry for precise geoid and gravity recovery in the Mediterranean Sea, **125,** 285
Arkani-Hamed, J. *see* Sobouti, F.
Armijo, R. *see* Rigo, A.
Armijo, R., Meyer, B., King, G.C.P., Rigo, A., Papanastassiou, D., Quaternary evolution of the Corinth Rift and its implications for the Late Cenozoic evolution of the Aegean, **126,** 11
Ass'ad, J.M., McDonald, J.A., Tatham, R.H., Kusky, T.M., Elastic wave propagation in a medium containing oriented inclusions with a changing aspect ratio: a physical model study, **125,** 163
Assumpção, M. *see* James, D.E.
Ayala, C., Fernàndez, M., Torné, M., Pous, J., Two-dimensional geoid modelling: some remarks on Chapman's algorithm, **127,** 542

Baban, S.M.J. *see* Dearing, J.A.
Backus, G.E. *see* Walker, A.D.
Badal, J., Corchete, V., Payo, G., Pujades, L., Canas, J.A., Imaging of shear-wave velocity structure beneath Iberia, **124,** 591
Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B., Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—I. Melt extraction by compaction and deformation, **127,** 616
Bagdassarov, N.S., Dorfman, A.M., Dingwell, D.B., Modelling of melt segregation processes by high-temperature centrifuging of partially molten granites—II. Rayleigh–Taylor instability and sedimentation, **127,** 627
Baker, G.E. *see* Gurrola, H.
Baldi, P. *see* Anzidei, M.
Balini, M. *see* Muttoni, G.
Bandyopadhyay, G. *see* Das, A.K.
Banks, R.J., Livelybrooks, D., Jones, P., Longstaff, R., Causes of high crustal conductivity beneath the Iapetus suture zone in Great Britain, **124,** 433
Bano, M., Constant dielectric losses of ground-penetrating radar waves, **124,** 279
Barr, T.D., Houseman, G.A., Deformation fields around a fault embedded in a non-linear ductile medium, **125,** 473
Basile, C. *see* Martinod, J.
Basili, A. *see* Giardini, D.
Bates, M.P., Jones, D.L., A palaeomagnetic investigation of the Mashonaland dolerites, north-east Zimbabwe, **126,** 513
Bazhenov, M.L. *see* Chauvin, A.
Bell, A.C. *see* King, E.C.
Bellenberg, M. *see* Kodaira, S.
Ben-Hador, R. *see* Buchen, P.W.
Berckhemer, H. *see* Zang, A.
Berge, M. *see* Cazenave, A.
Bing, Z. *see* Romanelli, F.
Bitri, A. *see* Leroy, S.
Bjarnason, I.Th. *see* Menke, W.
Blackman, D.K., Kendall, J.-M., Dawson, P.R., Wenk, H.-R., Boyce, D., Phipps Morgan, J., Teleseismic imaging of subaxial flow at mid-ocean ridges: traveltime effects of anisotropic mineral texture in the mantle, **127,** 415
Blair, D.P., Estimates of seismic attenuation using vibrational resonance and pulse transmission in four large blocks of rock, **126,** 135
Boadu, F.K., Long, L.T., Effects of fractures on seismic-wave velocity and attenuation, **127,** 86
Boggs, D.H. *see* Hide, R.
Boschi, E. *see* Giardini, D.; Giunchi, C.
Bott, M.H.P., Flexure associated with planar faulting, **126,** F21
Bottari, A. *see* Godano, C.
Boyce, D. *see* Blackman, D.K.
Braile, L.W. *see* Wang, B.
Brandsdóttir, B. *see* Menke, W.
Briers, R., Dehant, V., Leroy, O., The influence of a density stratification and of an incompressibility modulus on the spectrum of core modes, **127,** 588
Brito, D., Cardin, P., Nataf, H.-C., Olson, P., Experiments on Joule heating and the dissipation of energy in the Earth's core, **127,** 339
Brossier, C. *see* Cazenave, A.
Brun, J.-P. *see* Faccenna, C.
Buchanan, S.K., Scrutton, R.A., Edwards, R.A., Whitmarsh, R.B., Marine magnetic data processing in equatorial regions off Ghana, **125,** 123
Buchen, P.W., Ben-Hador, R., Free-mode surface-wave computations, **124,** 869
Bufe, C.G. *see* Varnes, D.J.
Buffett, B.A., Effects of a heterogeneous mantle on the velocity and magnetic fields at the top of the core, **125,** 303
Buffett, B.A., Numerical solution of boundary-layer problems, **126,** 291
Burov, E.B. *see* Cloetingh, S.
Burton, P.W. *see* Kalogeras, I.S.

Caccamo, D., Neri, G., Sarao, A., Wyss, M., Estimates of stress directions by inversion of earthquake fault-plane solutions in Sicily, **125,** 857
Camara-Zi, A. *see* Connors, M.
Camelbeeck, T., Iranga, M.D., Deep crustal earthquakes and active faults along the Rukwa trough, eastern Africa, **124,** 612
Campillo, M. *see* Pedersen, H.A.
Campus, P. *see* Cespuglio, G.; Šilený , J.
Canas, J.A. *see* Badal, J.
Cara, M. *see* Grésillaud, A.
Cardin, P. *see* Brito, D.
Casula, G. *see* Anzidei, M.
Cazenave, A., Schaeffer, P., Berge, M., Brossier, C., Dominh, K., Gennero, M.C., High-resolution mean sea surface computed with altimeter data of ERS-1 (geodetic mission) and Topex–Poseidon, **125,** 696
Celaya, M., Wahr, J., Aliasing and noise in core-surface flow inversions, **126,** 447
Cespuglio, G., Campus, P., Šilený , J., Seismic moment tensor resolution by waveform inversion of a few local noisy records—II. Application to the Phlegraean Fields (Southern Italy) volcanic tremors, **126,** 620
Chailas, S. *see* Lagios, E.
Chandrasekhar, E., Alex, S., On the anomalous features of the geomagnetic quiet-day field variations at Nagpur, India, **127,** 703
Chao, B.F. *see* Furuya, M.
Chauvin, A., Perroud, H., Bazhenov, M.L., Anomalous low palaeomagnetic inclinations from Oligocene–Lower Miocene red beds of the south-west Tien Shan, Central Asia, **126,** 303
Chavez, R.E. *see* Connors, M.
Chiarabba, C. *see* Frepoli, A.
Choy, G.L. *see* Mueller, S.

Clévédé, E., Lognonné, P., Corrigendum, **126,** 903
Clévédé, E., Lognonné, P., Fréchet derivatives of coupled seismograms with respect to an anelastic rotating earth, **124,** 456
Cloetingh, S. *see* Okaya, N.
Cloetingh, S., Burov, E.B., Thermomechanical structure of European continental lithosphere: constraints from rheological profiles and EET estimates, **124,** 695
Connors, M., Hildebrand, A.R., Pilkington, M., Ortiz-Aleman, C., Chavez, R.E., Urrutia-Fucugauchi, J., Graniel-Castro, E., Camara-Zi, A., Vasquez, J., Halpenny, J.F., Yucatán karst features and the size of Chicxulub crater, **127,** F11
Corchete, V. *see* Badal, J.
Córdoba, D. *see* Téllez, J.
Correig, A.M., Urquizu, M., Chaotic behaviour of coda waves in the eastern Pyrenees, **126,** 113
Courboulex, F., Virieux, J., Deschamps, A., Gibert, D., Zollo, A., Source investigation of a small event using empirical Green's functions and simulated annealing, **125,** 768
Coutel, F. *see* Komatitsch, D.
Crampin, S. *see* Hudson, J.A.
Crespi, M. *see* Anzidei, M.
Crossley, D.J., Rochester, M.G., The subseismic approximation in core dynamics—II. Love numbers and surface gravity, **125,** 830

Dagley, P. *see* McIntosh, G.
Dahlen, F.A. *see* Zhao, L.
Dahm, T., Relative moment tensor inversion based on ray theory: theory and synthetic tests, **124,** 245
Dann, R.J.L. *see* Dearing, J.A.
D'Argenio, B., Iorio, M., Tarling, D.H., Periodicity of magnetic intensities in magnetic anomaly profiles: the Cenozoic of the South Atlantic, **127,** 141
Darmendrail, X. *see* Martinod, J.
Das, A.K., Piper, J.D.A., Bandyopadhyay, G., Mallik, S.B., Polarity inversion in the Rajmahal lavas, north-east India: trap emplacement near commencement of the Cretaceous Normal Superchron, **124,** 427
Davis, R.G., Whaler, K.A., Determination of a steady velocity field in a rotating frame of reference at the surface of the Earth's core, **126,** 92
Davy, P. *see* Faccenna, C.
Dawson, P.R. *see* Blackman, D.K.
Dawson, T.W., *B*-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—I. Solution by the Wiener–Hopf technique, with limiting forms, **124,** 556
Dawson, T.W., *B*-polarization induction in two thin half-sheets coupled to the mantle by a conducting crust—II. Solution by the mode-matching method, the fields above the conductors, and example results, **124,** 577
de Hoop, A.T., A general correspondence principle for time-domain electromagnetic wave and diffusion fields, **127,** 757
De Santis, A. *see* Torta, J.M.
De Santis, A., Torta, J.M., Falcone, C., A simple approach to the transformation of spherical harmonic models under coordinate system rotation, **126,** 263
Deal, M., Nolet, G., Nullspace shuttles, **124,** 372
Deal, M.M., Nolet, G., Comment on 'Estimation of resolution and covariance for large matrix inversions' by J. Zhang and G. A. McMechan, **127,** 245
Dearing, J.A., Dann, R.J.L., Hay, K., Lees, J.A., Loveland, P.J., Maher, B.A., O'Grady, K., Frequency-dependent susceptibility measurements of environmental materials, **124,** 228
Dearing, J.A., Hay, K.L., Baban, S.M.J., Huddleston, A.S., Wellington, E.M.H., Loveland, P.J., Magnetic susceptibility of soil: an evaluation of conflicting theories using a national data set, **127,** 728
Defraigne, P., Dehant, V., Wahr, J.M., Internal loading of an inhomogeneous compressible earth with phase boundaries, **125,** 173
Dehant, V. *see* Briers, R.; Defraigne, P.
Dekkers, M.J., Schoonen, M.A.A., Magnetic properties of hydrothermally synthesized greigite (Fe_3S_4)—I. Rock magnetic parameters at room temperature, **126,** 360
Deschamps, A. *see* Courboulex, F.; Perrot, J.; Rigo, A.
Dickey, J.O. *see* Hide, R.
Dickman, S.R. *see* Xie, L.
Dickmann, T. *see* Funck, T.
Digranes, P., Kristoffersen, Y., Karajev, N., An analysis of shear waves observed in VSP data from the superdeep well at Kola, Russia, **126,** 545
Dimri, V. *see* Maus, S.
Dingwell, D.B. *see* Bagdassarov, N.S.
Djikpéssé, H. *see* Igel, H.
Dominh, K. *see* Cazenave, A.
Dong, D. *see* Hide, R.
Dorfman, A.M. *see* Bagdassarov, N.S.
Dorman, L.M. *see* Nolet, G.
Douma, H., Snieder, R., Lomax, A., Ensemble inference in terms of empirical orthogonal functions, **127,** 363
Drakatos, G., Latoussakis, J., Some features of aftershock patterns in Greece, **126,** 123

Edwards, R.A. *see* Buchanan, S.K.
Einarsson, P. *see* Menke, W.
Ekman, M., Mäkinen, J., Recent postglacial rebound, gravity change and mantle flow in Fennoscandia, **126,** 229
Elmore, R.D. *see* Katz, B.
Eloy, C. *see* Gurnis, M.
Embleton, B.J.J., McElhinny, M.W., Ma, X., Zhang, Z., Li, Z.X., Permo-Triassic magnetostratigraphy in China: the type section near Taiyuan, Shanxi Province, North China, **126,** 382
Enderle, U., Mechie, J., Sobolev, S., Fuchs, K., Seismic anisotropy within the uppermost mantle of southern Germany, **125,** 747
Eneva, M., Effect of limited data sets in evaluating the scaling properties of spatially distributed data: an example from mining-induced seismic activity, **124,** 773
Engel, M.H. *see* Katz, B.
Engelhard, L., Determination of seismic-wave attenuation by complex trace analysis, **125,** 608
Enkin, R.J., Watson, G.S., Statistical analysis of palaeomagnetic inclination data, **126,** 495
Esparza, F.J., Gómez-Treviño, E., Inversion of magnetotelluric soundings using a new integral form of the induction equation, **127,** 452

Fabian, K., Kirchner, A., Williams, W., Heider, F., Leibl, T., Hubert, A., Three-dimensional micromagnetic calculations for magnetite using FFT, **124,** 89
Faccenna, C., Davy, P., Brun, J.-P., Funiciello, R., Giardini, D., Mattei, M., Nalpas, T., The dynamics of back-arc extension: an experimental approach to the opening of the Tyrrhenian Sea, **126,** 781
Faggioni, O., Pinna, E., Savelli, C., Schreider, A.A., Corrigendum, **125,** 637
Falcone, C. *see* De Santis, A.
Farquharson, C.G., Oldenburg, D.W., Approximate sensitivities for the electromagnetic inverse problem, **126,** 235
Farra, V. *see* Perrot, J.
Fernàndez, M. *see* Ayala, C.
Fine, P., Verosub, K.L., Singer, M.J., Erratum, **126,** 904
Fiordelisi, A. *see* Larsen, J.C.
Fleitout, L. *see* Karpychev, M.
Florindo, F., Record of a previously unidentified short geomagnetic event from an upper Miocene sedimentary sequence, and preferred path of the transitional VGPs, **126,** F1
Forte, A.M. *see* Panasyuk, S.V.
Fowler, A.C., Scott, D.R., Hydraulic crack propagation in a porous medium, **127,** 595
Francq, C., Menvielle, M., A model for the *am* (*Km*) planetary geomagnetic activity index and application to prediction, **125,** 729
Freeman, R. *see* Okaya, N.
Frepoli, A., Selvaggi, G., Chiarabba, C., Amato, A., State of stress in the Southern Tyrrhenian subduction zone from fault-plane solutions, **125,** 879
Frohlich, C. *see* Zhao, L.-S.
Fuchs, K. *see* Enderle, U.; Tittgemeyer, M.
Fujiwara, H. *see* Takenaka, H.
Fukuyama, E. *see* Yamashita, T.
Füllekrug, M., On the minimization of correlated residuals, **126,** 63
Funck, T., Dickmann, T., Rihm, R., Krastel, S., Lykke-Andersen, H., Schmincke, H.-U., Reflection seismic investigations in the volcaniclastic apron of Gran Canaria and implications for its volcanic evolution, **125,** 519
Funiciello, R. *see* Faccenna, C.

Furumura, T., Takenaka, H., 2.5-D modelling of elastic waves using the pseudospectral method, **124,** 820
Furuya, M., Chao, B.F., Estimation of period and Q of the Chandler wobble, **127,** 693

Gaetani, M. *see* Muttoni, G.
Gallet, Y., Pavlov, V., Magnetostratigraphy of the Moyero river section (north-western Siberia): constraints on geomagnetic reversal frequency during the early Palaeozoic, **125,** 95
Gamond, J.-F. *see* Martinod, J.
Gasperini, P. *see* Giunchi, C.
Gaudemer, Y. *see* Meyer, B.
Geiss, C.E., Heider, F., Soffel, H.C., Magnetic domain observations on magnetite and titanomaghemite grains (0.5–10μm), **124,** 75
Geissman, J.W. *see* Molina-Garza, R.S.
Gennero, M.C. *see* Cazenave, A.
Germani, D. *see* Muttoni, G.
Giardini, D. *see* Faccenna, C.
Giardini, D., Basili, A., Boschi, E., Applying the relative hypocentre location approach: where was the 1980 November 23 Irpinia earthquake?, **127,** 605
Gibert, D. *see* Courboulex, F.
Giunchi, C., Sabadini, R., Boschi, E., Gasperini, P., Dynamic models of subduction: geophysical and geological evidence in the Tyrrhenian Sea, **126,** 555
Godano, C., Alonzo, M.L., Bottari, A., Multifractal analysis of the spatial distribution of earthquakes in southern Italy, **125,** 901
Gold, N. *see* Shapiro, S.A.
Gómez-Treviño, E. *see* Esparza, F.J.
Gómez-Treviño, E., Approximate depth averages of electrical conductivity from surface magnetotelluric data, **127,** 762
Goodkind, J.M., Test of theoretical solid earth and ocean gravity tides, **125,** 106
Grafarend, E. *see* Xu, P.
Graniel-Castro, E. *see* Connors, M.
Greff-Lefftz, M., Legros, H., Viscoelastic mantle density heterogeneity and core–mantle topography, **125,** 567
Grésillaud, A., Cara, M., Anisotropy and P-wave tomography: a new approach for inverting teleseismic data from a dense array of stations, **126,** 77
Grevemeyer, I., Hotspot–ridge interaction in the Indian Ocean: constraints from Geosat/ERM altimetry, **126,** 796
Grevemeyer, I., Weigel, W., Seismic velocities of the uppermost igneous crust versus age, **124,** 631
Grimbergen, J.L.T. *see* Wapenaar, C.P.A.
Gross, R.S. *see* Hide, R.
Gubbins, D. *see* Love, J.J.; Nformi, S.
Gudmundsson, O. *see* Kennett, B.L.N.
Gudmundsson, O., On the effect of diffraction on traveltime measurements, **124,** 304
Gurnis, M. *see* Zhong, S.
Gurnis, M., Eloy, C., Zhong, S., Free-surface formulation of mantle convection—II. Implication for subduction-zone observables, **127,** 719
Gurrola, H., Baker, G.E., Minster, J.B., Reply to comment by M. D. Sacchi and T. J. Ulrych on 'Simultaneous time-domain deconvolution with application to the computation of receiver functions', **127,** 255
Gurrola, H., Minster, J.B., Owens, T., Reply to comments by G. Kosarev, N. Petersen and L. P. Vinnik on 'The use of velocity spectrum for stacking receiver functions and imaging upper mantle discontinuities', **124,** 642
Gusev, A.A., Abubakirov, I.R., Simulated envelopes of non-isotropically scattered body waves as compared to observed ones: another manifestation of fractal heterogeneity, **127,** 49
Gwavava, O., Swain, C.J., Podmore, F., Mechanisms of isostatic compensation of the Zimbabwe and Kaapvaal cratons, the Limpopo Belt and the Mozambique basin, **127,** 635

Haas, J. *see* Márton, E.
Hager, B.H. *see* Panasyuk, S.V.
Haines, J. *see* Nothard, S.
Halpenny, J.F. *see* Connors, M.
Hamano, Y. *see* Sumita, I.
Hanyga, A. *see* Lambaré, G.
Hanyk, L., Yuen, D.A., Matyska, C., Initial-value and modal approaches for transient viscoelastic responses with complex viscosity profiles, **127,** 348
Hara, T., Kuge, K., Kawakatsu, H., Determination of the isotropic component of deep focus earthquakes by inversion of normal-mode data, **127,** 515
Hasegawa, H.S. *see* Wu, P.
Hatzfeld, D. *see* Rigo, A.
Hay, K. *see* Dearing, J.A.
Hay, K.L. *see* Dearing, J.A.
Heider, F. *see* Fabian, K.; Geiss, C.E.
Helffrich, G.R., Wood, B.J., 410 km discontinuity sharpness and the form of the olivine α–β phase diagram: resolution of apparent seismic contradictions, **126,** F7
Helmberger, D.V. *see* Song, X.J.
Henry, P. *see* Lallemant, S.J.
Hide, R. *see* Jackson, A.
Hide, R., Boggs, D.H., Dickey, J.O., Dong, D., Gross, R.S., Jackson, A., Topographic core–mantle coupling and polar motion on decadal time-scales, **125,** 599
Hide, R., Potential magnetic field and potential vorticity in magnetohydrodynamics, **125,** F1
Hildebrand, A.R. *see* Connors, M.
Hipkin, R.G. *see* Lagios, E.
Hirschleber, H.B. *see* Kodaira, S.
Holliger, K., Upper-crustal seismic velocity heterogeneity as derived from a variety of P-wave sonic logs, **125,** 813
Holt, B. *see* Nothard, S.
Houghton, B.F. *see* Tanaka, H.
Hounslow, M.W., Maher, B.A., Quantitative extraction and analysis of carriers of magnetization in sediments, **124,** 57
Houseman, G.A. *see* Barr, T.D.
Hubert, A. *see* Fabian, K.
Hubral, P. *see* Shapiro, S.A.
Hubral, P., Tygel, M., Schleicher, J., Seismic image waves, **125,** 431
Huddleston, A.S. *see* Dearing, J.A.
Hudson, J.A. *see* Li, X.
Hudson, J.A., Liu, E., Crampin, S., The mechanical properties of materials with interconnected cracks and pores, **124,** 105
Hudson, J.A., Liu, E., Crampin, S., Transmission properties of a plane fault, **125,** 559
Hurich, C.A., Statistical description of seismic reflection wavefields: a step towards quantitative interpretation of deep seismic reflection profiles, **125,** 719
Hwang, C., Parsons, B., An optimal procedure for deriving marine gravity from multi-satellite altimetry, **125,** 705

IAGA, International geomagnetic reference field, 1995 revision, **125,** 318
Igel, H., Djikpéssé, H., Tarantola, A., Waveform inversion of marine reflection seismograms for P impedance and Poisson's ratio, **124,** 363
Ihmlé, P.F., Frequency-dependent relocation of the 1992 Nicaragua slow earthquake: an empirical Green's function approach, **127,** 75
Ingham, M., Magnetotelluric soundings across the South Island of New Zealand: electrical structure associated with the orogen of the Southern Alps, **124,** 134
Ionov, A.M., Maximov, G.A., Propagation of tube waves generated by an external source in layered permeable rocks, **124,** 888
Iorio, M. *see* D'Argenio, B.
Iranga, M.D. *see* Camelbeeck, T.
Irikura, K. *see* Kakehi, Y.
Iwasaki, T. *see* Kodaira, S.

Jackson, A. *see* Hide, R.
Jackson, A., Hide, R., Invariants in toroidal and tangentially geostrophic frozen-flux velocity fields, **125,** 925
Jackson, J. *see* Nothard, S.
James, D.E., Assumpção, M., Tectonic implications of S-wave anisotropy beneath SE Brazil, **126,** 1
Johnston, A.C., Seismic moment assessment of earthquakes in stable continental regions—I. Instrumental seismicity, **124,** 381
Johnston, A.C., Seismic moment assessment of earthquakes in stable continental regions—II. Historical seismicity, **125,** 639
Johnston, A.C., Seismic moment assessment of earthquakes in stable continental regions—III. New Madrid 1811–1812, Charleston 1886 and Lisbon 1755, **126,** 314
Johnston, P. *see* Lambeck, K.
Jokat, W., Weigelt, E., Kristoffersen, Y., Rasmussen, T., Schöne, T., Erratum, **125,** 323

Jones, D.L. *see* Bates, M.P.
Jones, P. *see* Banks, R.J.
Jouanne, F. *see* Martinod, J.

Kaila, K.L. *see* Sain, K.
Kaila, K.L., Murty, P.R.K., Rao, N.M., Rao, I.B.P., Rao, P.K., Sridhar, A.R., Murthy, A.S.N., Rao, V.V., Prasad, B.R., Structure of the crystalline basement in the West Bengal Basin, India, as determined from DSS studies, **124,** 175
Kakehi, Y., Irikura, K., Estimation of high-frequency wave radiation areas on the fault plane by the envelope inversion of acceleration seismograms, **125,** 892
Kalogeras, I.S., Burton, P.W., Shear-wave velocity models from Rayleigh-wave dispersion in the broader Aegean area, **125,** 679
Kampke, A. *see* Weller, A.
Kanazawa, T. *see* Kodaira, S.
Karajev, N. *see* Digranes, P.
Karato, S. *see* Riedel, M.R.
Karpychev, M., Fleitout, L., Simple considerations on forces driving plate motion and on the plate-tectonic contribution to the long-wavelength geoid, **127,** 268
Kassaras, I. *see* Rigo, A.
Katsura, K. *see* Ogata, Y.
Katz, B., Elmore, R.D., Engel, M.H., Leythaeuser, D., Palaeomagnetism of the Jurassic Asphaltkalk deposits, Holzen, northern Germany, **127,** 305
Kaufmann, G., Wolf, D., Deglacial land emergence and lateral upper-mantle heterogeneity in the Svalbard Archipelago—II. Extended results for high-resolution load models, **127,** 125
Kaula, W.M. *see* Lenardic, A.
Kaverina, A.N., Lander, A.V., Prozorov, A.G., Global creepex distribution and its relation to earthquake-source geometry and tectonic origin, **125,** 249
Kawakatsu, H. *see* Hara, T.
Kawakatsu, H., Observability of the isotropic component of a moment tensor, **126,** 525
Kemp, D.V., Stevenson, D.J., A tensile, flexural model for the initiation of subduction, **125,** 73
Kendall, J.-M. *see* Blackman, D.K.
Kennett, B.L.N. *see* Montagner, J.-P.; Takenaka, H.
Kennett, B.L.N., Gudmundsson, O., Ellipticity corrections for seismic phases, **127,** 40
Kennett, B.L.N., How does the shear-wave structure of the seabed affect the seismic wavefield?, **124,** 341
Kent, D.V. *see* Muttoni, G.
Kim, S.G., Wu, Z., Empirical analysis of digital seismograms from a cluster of explosions at regional distances for characterizing multiple explosions, **125,** 491
King, E.C., Bell, A.C., A towed geophone system for use in snow-covered terrain, **126,** 54
King, G.C.P. *see* Armijo, R.
Kirchner, A. *see* Fabian, K.
Kissling, E. *see* Okaya, N.
Kodaira, S., Bellenberg, M., Iwasaki, T., Kanazawa, T., Hirschleber, H.B., Shimamura, H., V_P/V_S ratio structure of the Lofoten continental margin, northern Norway, and its geological implications, **124,** 724
Kohl, T., Rybach, L., Thermal and hydraulic aspects of the KTB drill site, **124,** 756
Komatitsch, D., Coutel, F., Mora, P., Tensorial formulation of the wave equation for modelling curved interfaces, **127,** 156
Kono, M. *see* Tanaka, H.
Kosarev, G., Petersen, N., Vinnik, L., Comment on 'The use of velocity spectrum for stacking receiver functions and imaging upper mantle discontinuities' by H.Gurrola, J. B. Minster and T. Owens, **124,** 637
Kosterov, A.A., Shashkanov, V.A., A phenomenological model of orientational magnetic anisotropy of sediments, **125,** 149
Krastel, S. *see* Funck, T.
Krishna, V.G., Meissner, R., Thomas, S.A., Unusual sub-Moho events near Bornholm, Baltic Sea: modelling of BABEL seismic wide-angle data and a tectonic interpretation, **125,** 193
Kristoffersen, Y. *see* Digranes, P.; Jokat, W.
Kuge, K. *see* Hara, T.
Kukkonen, I.T., Šafanda, J., Palaeoclimate and structure: the most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland, **126,** 101
Kumazawa, M. *see* Sumita, I.
Kusky, T.M. *see* Ass'ad, J.M.

Lagios, E., Chailas, S., Hipkin, R.G., Newly compiled gravity and topographic data banks of Greece, **126,** 287
Lailly, P., Sinoquet, D., Smooth velocity models in reflection tomography for imaging complex geological structures, **124,** 349
Lallemant, S.J. *see* Pollitz, F.F.
Lallemant, S.J., Le Pichon, X., Thoué, F., Henry, P., Saito, S., Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—I, **126,** 871
Lambaré, G., Lucio, P.S., Hanyga, A., Two-dimensional multivalued traveltime and amplitude maps by uniform sampling of a ray field, **125,** 584
Lambeck, K. *see* McQueen, H.W.S.
Lambeck, K., Johnston, P., Smither, C., Nakada, M., Glacial rebound of the British Isles—III. Constraints on mantle viscosity, **125,** 340
Lander, A.V. *see* Kaverina, A.N.
Larsen, J.C., Mackie, R.L., Manzella, A., Fiordelisi, A., Rieven, S., Robust smooth magnetotelluric transfer functions, **124,** 801
Latoussakis, J. *see* Drakatos, G.
Le Pichon, X. *see* Lallemant, S.J.; Pollitz, F.F.
Lee, T.-C., Pore-pressure rise, frictional strength, and fault slip: one-dimensional interaction models, **125,** 371
Lee, Y.S., Nishimura, S., Min, K.D., High-unblocking-temperature haematite magnetizations of Late Palaeozoic red beds from the Okcheon zone, southern part of the Korean Peninsula, **125,** 266
Lees, J.A. *see* Dearing, J.A.
Legros, H. *see* Greff-Lefftz, M.
Lehman, B., Sagnotti, L., Winkler, A., Lo Cascio, C., Magnetic mineralogy changes in the Pleistocene marine sequence of Montalto di Castro (central Italy) and influences on the magnetic anisotropy, **127,** 529
Lehmann, A. *see* Markert, H.
Leibl, T. *see* Fabian, K.
Lenardic, A., Kaula, W.M., Near-surface thermal/chemical boundary layer convection at infinite Prandtl number: two-dimensional numerical experiments, **126,** 689
Lerner-Lam, A. *see* Levin, V.
Leroy, O. *see* Briers, R.
Leroy, S., Bitri, A., Mauffret, A., Migration velocity analysis based on common-shot-depth migration applied to the seismic data of the Caribbean oceanic plateau, **125,** 199
Levin, V., Menke, W., Lerner-Lam, A., Seismic anisotropy in the north-eastern US as a source of significant teleseismic *P* traveltime anomalies, **126,** 593
Leythaeuser, D. *see* Katz, B.
Li, X., Hudson, J.A., Multiple scattering of elastic waves from a continuous and heterogeneous region, **126,** 845
Li, X.-Q., Nábělek, J., Detecting slow, long-duration slip of large earthquakes using very long-period orbital surface waves, **124,** 483
Li, X.-Y. *see* MacBeth, C.
Li, Z.X. *see* Embleton, B.J.J.
Liddicoat, J.C., Mono Lake Excursion in the Lahontan Basin, Nevada, **125,** 630
Lienert, M. *see* Zang, A.
Liu, E. *see* Hudson, J.A.
Liu, X.-F., Tromp, J., Uniformly valid body-wave ray theory, **127,** 461
Livelybrooks, D. *see* Banks, R.J.
Lo Cascio, C. *see* Lehman, B.
Lognonné, P. *see* Clévédé, E.
Lomax, A. *see* Douma, H.
Lomax, A. *see* Snieder, R.
Lomax, A., Snieder, R., Estimation of finite-frequency waveforms through wavelength-dependent averaging of velocity, **126,** 369
Long, L.T. *see* Boadu, F.K.
Longstaff, R. *see* Banks, R.J.
Love, J.J., Gubbins, D., Optimized kinematic dynamos, **124,** 787
Loveland, P.J. *see* Dearing, J.A.
Løvlie, R., Putkonen, J., Dating of thaw depths in permafrost terrain by the palaeomagnetic method: experimental acquisition of a freezing remanent magnetization, **125,** 850
Lucas, S.G. *see* Molina-Garza, R.S.
Lucio, P.S. *see* Lambaré, G.
Luzón, F. *see* Sánchez-Sesma, F.J.
Luzum, B.J. *see* McCarthy, D.D.
Lykke-Andersen, H. *see* Funck, T.

Lyon-Caen, H. *see* Rigo, A.

Ma, X. *see* Embleton, B.J.J.
MacBeth, C., Li, X.-Y., Linear matrix operations for multicomponent seismic processing, **124,** 189
McCarthy, D.D., Luzum, B.J., Path of the mean rotational pole from 1899 to 1994, **125,** 623
McClelland, E., Theory of CRM acquired by grain growth, and its implications for TRM discrimination and palaeointensity determination in igneous rocks, **126,** 271
McDonald, J.A. *see* Ass'ad, J.M.
McElhinny, M.W. *see* Embleton, B.J.J.
McEnroe, S.A., North America during the Lower Cretaceous: new palaeomagnetic constraints from intrusions in New England, **126,** 477
McIntosh, G., Rolph, T.C., Shaw, J., Dagley, P., A detailed record of normal–reversed polarity transition obtained from a thick loess sequence at Jiuzhoutai, near Lanzhou, China, **127,** 651
McKenzie, D. *see* Nothard, S.; Qiu, X.
Mackie, R.L. *see* Larsen, J.C.
McMechan, G.A. *see* Özdenvar, T.; Wu, Y.; Zhang, J.
McQueen, H.W.S., Lambeck, K., Determination of crustal structure in central Australia by inversion of traveltime residuals, **126,** 645
McWilliams, M.O. *see* Tanaka, H.
Maguire, P.K.H. *see* Masotti, R.
Maher, B.A. *see* Dearing, J.A.; Hounslow, M.W.
Mäkinen, J. *see* Ekman, M.
Makropoulos, K. *see* Rigo, A.
Malin, S.R.C., Tunçer, M.K., Yazıcı-Çakın, O., Systematic analysis of magnetic observatory data—I. A proposed method, **126,** 635
Malin, S.R.C, Winch, D.E., Annual variation of the geomagnetic field, **124,** 170
Mallik, S.B. *see* Das, A.K.
Manzella, A. *see* Larsen, J.C.
Mao, W. *see* Nformi, S.
Markert, H., Lehmann, A., Three-dimensional Rayleigh hysteresis of oriented core samples from the German Continental Deep Drilling Program: susceptibility tensor, Rayleigh tensor, three-dimensional Rayleigh law, **127,** 201
Marquering, H., Snieder, R., Nolet, G., Waveform inversions and the significance of surface-wave mode coupling, **124,** 258
Marquering, H., Snieder, R., Shear-wave velocity structure beneath Europe, the northeastern Atlantic and western Asia from waveform inversions including surface-wave mode coupling, **127,** 283
Martinec, Z, Vaníček, P., Formulation of the boundary-value problem for geoid determination with a higher-degree reference field, **126,** 219
Martinod, J., Jouanne, F., Taverna, J., Ménard, G., Gamond, J.-F., Darmendrail, X., Notter, J.-C., Basile, C., Present-day deformation of the Dauphiné Alpine and Subalpine massifs (SE France), **127,** 189
Márton, E., Haas, J., Ancient platform carbonates with well-developed Lofer cyclicity: new candidates for magnetostratigraphy and geodynamically oriented palaeomagnetism, **126,** 253
Mascle, J. *see* Peirce, C.
Masotti, R., Maguire, P.K.H., Mechie, J., On the upper mantle beneath the Kenya Rift, **126,** 579
Mattei, M. *see* Faccenna, C.
Matyska, C. *see* Hanyk, L.
Matyska, C., Variational principles for the momentum equation of mantle convection with Newtonian and power-law rheologies, **126,** 281
Mauffret, A. *see* Leroy, S.
Maupin, V. *see* Pedersen, H.A.
Maupin, V., The radiation modes of a vertically varying half-space: a new representation of the complete Green's function in terms of modes, **126,** 762
Maus, S., Dimri, V., Depth estimation from the scaling power spectrum of potential fields?, **124,** 113
Maximov, G.A. *see* Ionov, A.M.
Mechie, J. *see* Enderle, U.; Masotti, R.
Meço, S. *see* Muttoni, G.
Meissner, R. *see* Krishna, V.G.
Ménard, G. *see* Martinod, J.
Menke, W. *see* Levin, V.
Menke, W., Brandsdóttir, B., Einarsson, P., Bjarnason, I.Th., Reinterpretation of the RRISP-77 Iceland shear-wave profiles, **126,** 166
Menvielle, M. *see* Francq, C.
Mercer, J.A. *see* Odom, R.I.
Meyer, B. *see* Armijo, R.
Meyer, B., Tapponnier, P., Gaudemer, Y., Peltzer, G., Shunmin, G., Zhitai, C., Rate of left-lateral movement along the easternmost segment of the Altyn Tagh fault, east of 96°E (China), **124,** 29
Milne, G.A., Mitrovica, J.X., Postglacial sea-level change on a rotating Earth: first results from a gravitationally self-consistent sea-level equation, **126,** F13
Min, K.D. *see* Lee, Y.S.
Minkoff, S.E., A computationally feasible approximate resolution matrix for seismic inverse problems, **126,** 345
Minshull, T.A., White, R.S., Thin crust on the flanks of the slow-spreading Southwest Indian Ridge, **125,** 139
Minster, J.B. *see* Gurrola, H.
Mitrovica, J.X. *see* Milne, G.A.
Mocquet, A. *see* Vacher, P.
Molina-Garza, R.S., Geissman, J.W., Lucas, S.G., Van der Voo, R., Palaeomagnetism and magnetostratigraphy of Triassic strata in the Sangre de Cristo Mountains and Tucumcari Basin, New Mexico, USA, **124,** 935
Montagner, J.-P., Kennett, B.L.N., How to reconcile body-wave and normal-mode reference earth models, **125,** 229
Mora, P. *see* Komatitsch, D.
Moresi, L. *see* Zhong, S.
Mueller, S., Choy, G.L., Spence, W., Inelastic models of lithospheric stress—I. Theory and application to outer-rise plate deformation, **125,** 39
Mueller, S., Spence, W., Choy, G.L., Inelastic models of lithospheric stress—II. Implications for outer-rise seismicity and dynamics, **125,** 54
Mueller, St. *see* Okaya, N.
Müller, G. *see* Witte, O.
Murthy, A.S.N. *see* Kaila, K.L.
Murty, P.R.K. *see* Kaila, K.L.
Muttoni, G., Kent, D.V., Meço, S., Nicora, A., Gaetani, M., Balini, M., Germani, D., Rettori, R., Magnetobiostratigraphy of the Spathian to Anisian (Lower to Middle Triassic) Kçira section, Albania, **127,** 503

Nábělěk, J. *see* Li, X.-Q.
Nakada, M. *see* Lambeck, K.
Nakada, M., Viscosity structure of the oceanic lithosphere inferred from the differential late Quaternary sea-level variations for the southern Cook Islands, **126,** 829
Nalpas, T. *see* Faccenna, C.
Nataf, H.-C. *see* Brito, D.
Natale, G., Salusti, E., Non-linear temperature and pressure waves in fluid-saturated porous rocks, **124,** 649
Neri, G. *see* Caccamo, D.
Neves, F.A., Singh, S.C., Priestley, K.F., Velocity structure of upper-mantle transition zones beneath central Eurasia from seismic inversion using genetic algorithms, **125,** 869
Neves, F.A., Singh, S.C., Sensitivity study of seismic reflection/refraction data, **126,** 470
Nformi, S., Mao, W., Gubbins, D., Seismic source parameters in New Zealand from broad-band data, **124,** 289
Ni, Z. *see* Wu, P.
Nicora, A. *see* Muttoni, G.
Nishimura, S. *see* Lee, Y.S.
Nishimura, T., Horizontal layered structure with heterogeneity beneath continents and island arcs from particle orbits of long-period *P* waves, **127,** 773
Nolet, G. *see* Deal, M.; Deal, M.M.; Marquering, H.
Nolet, G., Dorman, L.M., Waveform analysis of Scholte modes in ocean sediment layers, **125,** 385
Nothard, S., Haines, J., Jackson, J., Holt, B., Distributed deformation in the subducting lithosphere at Tonga, **127,** 328
Nothard, S., McKenzie, D., Haines, J., Jackson, J., Gaussian curvature and the relationship between the shape and the deformation of the Tonga slab, **127,** 311
Notter, J.-C. *see* Martinod, J.

Obolentseva, I.R., On seismic gyrotropy, **124,** 415
Odom, R.I., Mercer, J.A., Spectral diffusion of elastic wave energy, **127,** 111
Ogata, Y., Utsu, T., Katsura, K., Statistical discrimination of foreshocks from other earthquake clusters, **127,** 17

Ogawa, Y., Uchida, T., A two-dimensional magnetotelluric inversion assuming Gaussian static shift, **126,** 69
O'Grady, K. *see* Dearing, J.A.
Okal, E.A. *see* Woods, M.T
Okaya, N., Cloetingh, S., Mueller, St., A lithospheric cross-section through the Swiss Alps—II. Constraints on the mechanical structure of a continent–continent collision zone, **127,** 399
Okaya, N., Freeman, R., Kissling, E., Mueller, St., A lithospheric cross-section through the Swiss Alps—I. Thermokinematic modelling of the Neoalpine orogeny, **125,** 504
Oldenburg, D.W. *see* Farquharson, C.G.
Olson, P. *see* Brito, D.
Ortiz-Aleman, C. *see* Connors, M.
Owens, T. *see* Gurrola, H.
Özdenvar, T., McMechan, G.A., Causes and reduction of numerical artefacts in pseudo-spectral wavefield extrapolation, **126,** 819

Panasyuk, S.V., Hager, B.H., Forte, A.M., Understanding the effects of mantle compressibility on geoid kernels, **124,** 121
Panza, G.F. *see* Romanelli, F.; Šilený, J.
Papadimitriou, P. *see* Rigo, A.
Papanastassiou, D. *see* Armijo, R.
Parés, J.M., Van der Voo, R., Stamatakos, J., Palaeomagnetism of Permian and Triassic red beds of NW Spain and implications for the tectonic evolution of the Asturian–Cantabrian Arc, **126,** 893
Park, J., Surface waves in layered anisotropic structures, **126,** 173
Parsons, B. *see* Hwang, C.
Pastana de Lugão, P., Wannamaker, P.E., Calculating the two-dimensional magnetotelluric Jacobian in finite elements using reciprocity, **127,** 806
Pavlov, V. *see* Gallet, Y.
Payo, G. *see* Badal, J.
Pedersen, H.A., Maupin, V., Campillo, M., Wave diffraction in multilayered media with the Indirect Boundary Element Method: application to 3-D diffraction of long-period surface waves by 2-D lithospheric structures, **125,** 545
Peirce, C., Whitmarsh, R.B., Scrutton, R.A., Pontoise, B., Sage, F., Mascle, J., Cote d'Ivoire–Ghana margin: seismic imaging of passive rifted crust adjacent to a transform continental margin, **125,** 781
Peltzer, G. *see* Meyer, B.
Perrot, J., Deschamps, A., Farra, V., Virieux, J., A 2-D velocity model of the Vrancea region in Romania: prediction of teleseismic waveforms, **125,** 537
Perroud, H. *see* Chauvin, A.
Petersen, N. *see* Kosarev, G.
Phipps Morgan, J. *see* Blackman, D.K.
Pilkington, M. *see* Connors, M.
Pinna, E. *see* Faggioni, O.
Piper, J.D.A. *see* Das, A.K.
Podmore, F. *see* Gwavava, O.
Pollitz, F.F., Coseismic deformation from earthquake faulting on a layered spherical earth, **125,** 1
Pollitz, F.F., Le Pichon, X., Lallemant, S.J., Shear partitioning near the central Japan triple junction: the 1923 great Kanto earthquake revisited—II, **126,** 882
Pontoise, B. *see* Peirce, C.
Potter, D.K. *see* Stephenson, A.
Pous, J. *see* Ayala, C.
Prasad, B.R. *see* Kaila, K.L.
Pratt, R.G., Song, Z.-M., Williamson, P., Warner, M., Two-dimensional velocity models from wide-angle seismic data by wavefield inversion, **124,** 323
Prevot, M. *see* Shcherbakova, V.V.
Priestley, K. *see* Qiu, X.
Priestley, K.F. *see* Neves, F.A.
Prozorov, A.G. *see* Kaverina, A.N.
Pu, X.H. *see* Weaver, J.T.
Pujades, L. *see* Badal, J.
Putkonen, J. *see* Løvlie, R.

Qiu, X., Priestley, K., McKenzie, D., Average lithospheric structure of southern Africa, **127,** 563

Rao, I.B.P. *see* Kaila, K.L.
Rao, N.M. *see* Kaila, K.L.
Rao, P.K. *see* Kaila, K.L.
Rao, V.V. *see* Kaila, K.L.
Rasmussen, T. *see* Jokat, W.
Reston, T.J., The S reflector west of Galicia: the seismic signature of a detachment fault, **127,** 230
Rettori, R. *see* Muttoni, G.
Riedel, M.R., Karato, S., Microstructural development during nucleation and growth, **125,** 397
Rieven, S. *see* Larsen, J.C.
Rigo, A. *see* Armijo, R.
Rigo, A., Lyon-Caen, H., Armijo, R., Deschamps, A., Hatzfeld, D., Makropoulos, K., Papadimitriou, P., Kassaras, I., A microseismic study in the western part of the Gulf of Corinth (Greece): implications for large-scale normal faulting mechanisms, **126,** 663
Riguzzi, F. *see* Anzidei, M.
Rihm, R. *see* Funck, T.
Rochester, M.G. *see* Crossley, D.J.
Rolph, T.C. *see* McIntosh, G.; Shaw, J.
Romanelli, F., Bing, Z., Vaccari, F., Panza, G.F., Analytical computation of reflection and transmission coupling coefficients for Love waves, **125,** 132
Roosbeek, F., RATGP95: a harmonic development of the tide-generating potential using an analytical method, **126,** 197
Roth, M. *see* Witte, O.
Rümpker, G., Wolf, D., Viscoelastic relaxation of a Burgers half-space: implications for the interpretation of the Fennoscandian uplift, **124,** 541
Rybach, L. *see* Kohl, T.
Ryberg, T. *see* Tittgemeyer, M.

Sabadini, R. *see* Giunchi, C.; Vermeersen, L.L.A.
Sacchi, M.D., Ulrych, T.J., Comment on 'Simultaneous time-domain deconvolution with application to the computation of receiver functions' by H. Gurrola, G. E. Baker and J. B. Minster, **127,** 253
Šafanda, J. *see* Kukkonen, I.T.
Sage, F. *see* Peirce, C.
Sagnotti, L. *see* Lehman, B.
Sain, K., Kaila, K.L., Ambiguity in the solution to the velocity inversion problem and a solution by joint inversion of seismic refraction and wide-angle reflection times, **124,** 215
Sain, K., Kaila, K.L., Corrigendum, **127,** 561
Sain, K., Kaila, K.L., Direct calculation of interval velocities and layer thicknesses from seismic wide-angle reflection times, **125,** 30
Saito, S. *see* Lallemant, S.J.
Salusti, E. *see* Natale, G.
Sánchez-Sesma, F.J., Luzón, F., Can horizontal *P* waves be trapped and resonate in a shallow sedimentary basin?, **124,** 209
Sanderson, D.J. *see* Zhang, X.
Sarao, A. *see* Caccamo, D.
Savelli, C. *see* Faggioni, O.
Schaeffer, P. *see* Cazenave, A.
Schleicher, J. *see* Hubral, P.
Schmidt, P.W. *see* Shcherbakova, V.V.
Schmincke, H.-U. *see* Funck, T.
Schöne, T. *see* Jokat, W.
Schoonen, M.A.A. *see* Dekkers, M.J.
Schreider, A.A. *see* Faggioni, O.
Schuster, G.T., Resolution limits for crosswell migration and traveltime tomography, **127,** 427
Schwarz, R. *see* Shapiro, S.A.
Scott, D.R. *see* Fowler, A.C.
Scrutton, R.A. *see* Buchanan, S.K.; Peirce, C.
Seichter, M. *see* Weller, A.
Selvaggi, G. *see* Frepoli, A.
Sen, M.K. *see* Zhao, L.-S.
Shapiro, S.A., Hubral, P., Ursin, B., Reflectivity/transmissivity for one-dimensional random elastic media: dynamic-equivalent-medium approach, **126,** 184
Shapiro, S.A., Schwarz, R., Gold, N., The effect of random isotropic inhomogeneities on the phase velocity of seismic waves, **127,** 783
Share, J.A. *see* Shaw, J.
Sharma, M.D., Surface-wave propagation in a cracked poroelastic half-space lying under a uniform layer of fluid, **127,** 31
Shashkanov, V.A. *see* Kosterov, A.A.
Shaw, J. *see* McIntosh, G.
Shaw, J., Walton, D., Yang, S., Rolph, T.C., Share, J.A., Microwave archaeointensities from Peruvian ceramics, **124,** 241
Shcherbakov, V.P. *see* Shcherbakova, V.V.
Shcherbakova, V.V., Shcherbakov, V.P., Schmidt, P.W., Prevot, M.,

On the effect of low-temperature demagnetization on TRMs and pTRMs, **127,** 379
Shimamura, H. *see* Kodaira, S.
Shimazaki, K. *see* Stirling, M.W.; Wyss, M.
Shunmin, G. *see* Meyer, B.
Šílený, J. *see* Cespuglio, G.
Šílený, J., Campus, P., Panza, G.F., Seismic moment tensor resolution by waveform inversion of a few local noisy records—I. Synthetic tests, **126,** 605
Singer, M.J. *see* Fine, P.
Singh, S.C. *see* Neves, F.A.
Sinoquet, D. *see* Lailly, P.
Smither, C. *see* Lambeck, K.
Snieder, R. *see* Alsina, D.; Lomax, A.
Snieder, R. *see* Douma, H.; Marquering, H.
Snieder, R. *see* Marquering, H.
Snieder, R., Lomax, A., Wavefield smoothing and the effect of rough velocity perturbations on arrival times and amplitudes, **125,** 796
Sobolev, S. *see* Enderle, U.
Sobouti, F., Arkani-Hamed, J., Numerical modelling of the deformation of the Iranian plateau, **126,** 805
Soffel, H.C. *see* Geiss, C.E.
Song, X.J., Helmberger, D.V., Zhao, L., Broad-band modelling of regional seismograms: the Basin and Range crustal structure, **125,** 15
Song, Z.-M. *see* Pratt, R.G.
Sotin, C. *see* Vacher, P.
Sozou, C., Corrigendum, **124,** 647
Spada, G. *see* Vermeersen, L.L.A.
Spence, W. *see* Mueller, S.
Sridhar, A.R. *see* Kaila, K.L.
Stamatakos, J. *see* Parés, J.M.
Stephenson, A., Potter, D.K., Towards a quantitative description of field-impressed anisotropy of susceptibility, **126,** 505
Stevenson, D.J. *see* Kemp, D.V.
Stirling, M.W., Wesnousky, S.G., Shimazaki, K., Corrigendum, **126,** 301
Stirling, M.W., Wesnousky, S.G., Shimazaki, K., Fault trace complexity, cumulative slip, and the shape of the magnitude–frequency distribution for strike-slip faults: a global survey, **124,** 833
Stoffa, P. *see* Zhao, L.-S.
Sumita, I., Yoshida, S., Kumazawa, M., Hamano, Y., A model for sedimentary compaction of a viscous medium and its application to inner-core growth, **124,** 502
Swain, C.J. *see* Gwavava, O.

Tachibana, T. *see* Tanaka, H.
Tada, T., Yamashita, T., The paradox of smooth and abrupt bends in two-dimensional in-plane shear-crack mechanics, **127,** 795
Takenaka, H. *see* Furumura, T.
Takenaka, H., Kennett, B.L.N., A 2.5-D time-domain elastodynamic equation for a general anisotropic medium, **127,** F1
Takenaka, H., Kennett, B.L.N., A 2.5-D time-domain elastodynamic equation for plane-wave incidence, **125,** F5
Takenaka, H., Kennett, B.L.N., Fujiwara, H., Effect of 2-D topography on the 3-D seismic wavefield using a 2.5-D discrete wavenumber–boundary integral equation method, **124,** 741
Tanaka, H., Turner, G.M., Houghton, B.F., Tachibana, T., Kono, M., McWilliams, M.O., Palaeomagnetism and chronology of the central Taupo Volcanic Zone, New Zealand, **124,** 919
Tapponnier, P. *see* Meyer, B.
Tarantola, A. *see* Igel, H.
Tarling, D.H. *see* D'Argenio, B.
Tarling, D.H., Abdeldayem, A.L., Palaeomagnetic-pole errors and a 'small-circle' assessment of the Gondwanan polar-wander path, **125,** 115
Tatham, R.H. *see* Ass'ad, J.M.
Taverna, J. *see* Martinod, J.
Taymaz, T., *S–P*-wave traveltime residuals from earthquakes and lateral inhomogeneity in the upper mantle beneath the Aegean and the Hellenic Trench near Crete, **127,** 545
Téllez, J., Córdoba, D., Observation of converted Moho reflections in the north-west of the Iberian Peninsula, **124,** 7
Thomas, S.A. *see* Krishna, V.G.
Thoué, F. *see* Lallemant, S.J.
Tittgemeyer, M., Wenzel, F., Fuchs, K., Ryberg, T., Wave propagation in a multiple-scattering upper mantle—observations and modelling, **127,** 492
Tjåland, E. *see* Ursin, B.
Torné, M. *see* Ayala, C.
Torta, J.M. *see* De Santis, A.
Torta, J.M., De Santis, A., On the derivation of the Earth's conductivity structure by means of spherical cap harmonic analysis, **127,** 441
Tromp, J. *see* Liu, X.-F.
Tunçer, M.K. *see* Malin, S.R.C.
Turner, G.M. *see* Tanaka, H.
Tygel, M. *see* Hubral, P.
Tziavos, I.N. *see* Arabelos, D.

Uchida, T. *see* Ogawa, Y.
Ulrych, T.J. *see* Sacchi, M.D.
Urabe, T. *see* Wyss, M.
Urquizu, M. *see* Correig, A.M.
Urrutia-Fucugauchi, J. *see* Connors, M.
Ursin, B. *see* Shapiro, S.A.
Ursin, B., Tjåland, E., The information content of the elastic reflection matrix, **125,** 214
Utsu, T. *see* Ogata, Y.

Vaccari, F. *see* Romanelli, F.
Vacher, P., Mocquet, A., Sotin, C., Comparison between tomographic structures and models of convection in the upper mantle, **124,** 45
Valensise, G. *see* Ward, S.N.
Vallianatos, F., Magnetotelluric response of a randomly layered earth, **125,** 577
van der Hilst, R.D. *see* Zielhuis, A.
Van der Voo, R. *see* Molina-Garza, R.S.; Parés, J.M.
Vaníček, P. *see* Martinec, Z
Varnes, D.J., Bufe, C.G., The cyclic and fractal seismic series preceding an m_b 4.8 earthquake on 1980 February 14 near the Virgin Islands, **124,** 149
Vasquez, J. *see* Connors, M.
Vermeersen, L.L.A., Sabadini, R., Spada, G., Compressible rotational deformation, **126,** 735
Vermeersen, L.L.A., Sabadini, R., Significance of the fundamental mantle rotational relaxation mode in polar wander simulations, **127,** F5
Verosub, K.L. *see* Fine, P.
Vesnaver, A.L., Irregular grids in seismic tomography and minimum-time ray tracing, **126,** 147
Vinnik, L. *see* Kosarev, G.
Virieux, J. *see* Courboulex, F.; Perrot, J.
von Dobeneck, T., A systematic analysis of natural magnetic mineral assemblages based on modelling hysteresis loops with coercivity-related hyperbolic basis functions, **124,** 675

Wahr, J. *see* Celaya, M.
Wahr, J.M. *see* Defraigne, P.
Walker, A.D., Backus, G.E., Is the non-dipole magnetic field random?, **124,** 315
Walton, D. *see* Shaw, J.
Wang, B., Braile, L.W., Simultaneous inversion of reflection and refraction seismic data and application to field data from the northern Rio Grande rift, **125,** 443
Wannamaker, P.E. *see* Pastana de Lugão, P.
Wapenaar, C.P.A., Grimbergen, J.L.T., Reciprocity theorems for one-way wavefields, **127,** 169
Wapenaar, C.P.A., One-way representations of seismic data, **127,** 178
Ward, S.N., Valensise, G., Progressive growth of San Clemente Island, California, by blind thrust faulting: implications for fault slip partitioning in the California Continental Borderland, **126,** 712
Warner, M. *see* Pratt, R.G.
Watson, G.S. *see* Enkin, R.J.
Weaver, J.T., Pu, X.H., Agarwal, A.K., Improved methods for solving for the magnetic field in E-polarization induction problems with fixed and staggered grids, **126,** 437
Weigel, W. *see* Grevemeyer, I.
Weigelt, E. *see* Jokat, W.
Weller, A., Seichter, M., Kampke, A., Induced-polarization modelling using complex electrical conductivities, **127,** 387
Wellington, E.M.H. *see* Dearing, J.A.
Wenk, H.-R. *see* Blackman, D.K.

Wenzel, F. *see* Tittgemeyer, M.
Wesnousky, S.G. *see* Stirling, M.W.
Wessel, P., Analytical solutions for 3-D flexural deformation of semi-infinite elastic plates, **124,** 907
Whaler, K.A. *see* Davis, R.G.
White, R.S. *see* Minshull, T.A.
Whitmarsh, R.B. *see* Buchanan, S.K.; Peirce, C.
Williams, W. *see* Fabian, K.
Williamson, P. *see* Pratt, R.G.
Winch, D.E. *see* Malin, S.R.C
Winkler, A. *see* Lehman, B.
Witte, O., Roth, M., Müller, G., Ray tracing in random media, **124,** 159
Wolf, D. *see* Kaufmann, G.; Rümpker, G.
Wolf, D., Note on estimates of the glacial–isostatic decay spectrum for Fennoscandia, **127,** 801
Wood, B.J. *see* Helffrich, G.R.
Woods, M.T, Okal, E.A., Rayleigh-wave dispersion along the Hawaiian Swell: a test of lithospheric thinning by thermal rejuvenation at a hotspot, **125,** 325
Wu, P., Hasegawa, H.S., Induced stresses and fault potential in eastern Canada due to a disc load: a preliminary analysis, **125,** 415
Wu, P., Hasegawa, H.S., Induced stresses and fault potential in eastern Canada due to a realistic load: a preliminary analysis, **127,** 215
Wu, P., Ni, Z., Some analytical solutions for the viscoelastic gravitational relaxation of a two-layer non-self-gravitating incompressible spherical earth, **126,** 413
Wu, Y., McMechan, G.A., Elastic full-waveform inversion for earthquake source parameters, **127,** 61
Wu, Z. *see* Kim, S.G.
Wyss, M. *see* Caccamo, D.
Wyss, M., Shimazaki, K., Urabe, T., Quantitative mapping of a precursory seismic quiescence to the Izu–Oshima 1990 (*M*6.5) earthquake, Japan, **127,** 735

Xie, L., Dickman, S.R., Tide gauge data analysis of the pole tide in the North Sea, **126,** 863
Xu, P., Grafarend, E., Statistics and geometry of the eigenspectra of three-dimensional second-rank symmetric random tensors, **127,** 744

Yamashita, T. *see* Tada, T.
Yamashita, T., Fukuyama, E., Apparent critical slip displacement caused by the existence of a fault zone, **125,** 459
Yang, S. *see* Shaw, J.
Yazıcı-Çakın, O. *see* Malin, S.R.C.
Yin, Z.-M., An improved method for the determination of the tectonic stress field from focal mechanism data, **125,** 841
Yoshida, S. *see* Sumita, I.
Yuen, D.A. *see* Hanyk, L.

Zang, A., Berckhemer, H., Lienert, M., Crack closure pressures inferred from ultrasonic drill-core measurements to 8 km depth in the KTB wells, **124,** 657
Zhang, J., McMechan, G.A., Reply to comment by Deal and Nolet on 'Estimation of resolution and covariance for large matrix inversions', **127,** 251
Zhang, X., Sanderson, D.J., Effects of stress on the two-dimensional permeability tensor of natural fracture networks, **125,** 912
Zhang, Z. *see* Embleton, B.J.J.
Zhao, L. *see* Song, X.J.
Zhao, L., Dahlen, F.A., Mode-sum to ray-sum transformation in a spherical and an aspherical earth, **126,** 389
Zhao, L.-S., Frohlich, C., Teleseismic body waveforms and receiver structures beneath seismic stations, **124,** 525
Zhao, L.-S., Sen, M.K., Stoffa, P., Frohlich, C., Application of very fast simulated annealing to the determination of the crustal structure beneath Tibet, **125,** 355
Zhitai, C. *see* Meyer, B.
Zhong, S. *see* Gurnis, M.
Zhong, S., Analytic solutions for Stokes' flow with lateral variations in viscosity, **124,** 18
Zhong, S., Gurnis, M., Moresi, L., Free-surface formulation of mantle convection—I. Basic theory and application to plumes, **127,** 708
Zielhuis, A., van der Hilst, R.D., Upper-mantle shear velocity beneath eastern Australia from inversion of waveforms from SKIPPY portable arrays, **127,** 1
Zollo, A. *see* Courboulex, F.